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Editorial

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COVID-19 Pandemic: A Global Health Crisis

Tej Bahadur Singh*

The New Year 2020 commenced with a turmoil and fear of COVID-19 pandemic which originated as Corona virus (SARS-CoV-2) in the city of Wuhan, in China in the last quarter of the year 2019. The COVID-19 spread in a fast and aggressive manner worldwide in a matter of just 12 weeks. High infectivity and significant mortality were observed in the spread of Corona Virus, which was noted to be more fatal for the elderly and persons living with chronic /long term illnesses. The major and serious impact of the virus was on respiratory system which resulted in large number of deaths within duration of 16 to 18 weeks from the onset of the pandemic and caused unprecedented damage to the human race all over the world. Tracking these developments, COVID-19 was declared a public health emergency worldwide by the World Health Organization (WHO) on 30th January 2020 and was subsequently declared a pandemic on 11th March, 2020.

WHO predicted and sensitized the countries to be ready to cater to the needs for the management of rising mental health problems which were likely to arise during and post the COVID-19 pandemic phase. Measures applied to restrict and contain the spread of COVID-19, inclusive of long lockdown periods, social distancing norms, self-quarantine resulted in marked isolation and increase of mental health problems. The experience of anxiety, depression, feelings of solitariness, suicidal thinking, and problems in handling isolation supplemented with aggressive behaviours, domestic violence and increased use of addictive substances and alcohol were frequently reported problems which made people's day to day living in a confined set up miserable.

Living under apprehension and sustained fear of getting infected; gave rise to physiological manifestations in form of sleep disturbances with decreased quantity and quality of sleep (Kochhar et.al. 2020). In addition, marked increase in symptoms of somatic discomfort has also been evident and the obvious reasons of this discomfort were disruptions in daily routine, marked decrease in physical activity and extensive use of electric gadgets like laptops and mobiles during lockdown. Fear of losing job was a major issue of concern among working adults in organized sector. Whereas numerous people who worked in unorganized sector and survived on daily wages had lost their sources of income and livelihood abruptly and this threatened their survival during COVID-19 pandemic and related lockdown.

On the other hand, frontline healthcare workers felt moderate to severe degree of stress while rendering their services. They were expected to be alert to and free from infection while working with COVID-19 victims; live away from their families and discharge their duties in a selfless manner. Many a times they faced aggression, opposition and physical assault by people while working in the community for the programmes of awareness generation, early intervention or vaccination. On account of their appreciative efforts they were named Corona warriors, who are playing a significant role in fight against COVID-19 in the country.

Two major vulnerable groups distinctly noted during COVID-19 pandemic were migrant labourers and persons suffering from long term serious/terminal illnesses & disabilities and in need of consistent regular clinical care or psychosocial interventions.Pandemic imposed the primary task on people across the globe to exercise adequate level of self-control and discipline in their behaviour with restrictions in day to day living causing more self-isolation, feelings of hopelessness, helplessness, apprehensions, anxieties and sadness. All offline psychotherapeutic intervention programs swiftly transitioned to online counselling and psychotherapy to assist people in coping with COVID-19 anxiety, impact of lockdowns and in dealing with the grief and trauma of losing family members to the COVID-19 pandemic. The impact of the COVID-19 was such that when an unprecedented number of deaths occurred, the family members did not get an opportunity to even perform the last rites and rituals for their friends and family members due to the on-going COVID-19 cremation protocols. These experiences lead to experience of grief which became complicated for numerous individuals and may have long term consequences for their mental health as well.

Indian Association of Clinical Psychologists quickly took steps and initiated a nationwide online tele-mental health counselling service known as *Paramarsh*. This pro-bono tele-mental health service commenced with the help of large number of practicing clinical psychologists who willingly came forward from across the different regions of the country to offer help at this online platform. This step was well appreciated even by the Ministry of Health and Family Welfare (MOHFW), Government of India (GOI) by outlining the details of this service from IACP on the MOHFW, GOI website.This contribution of Clinical Psychologists was well recognized and awarded locally and regionally by state governments throughout the nation. Manickam (2020) reported contributions of Clinical Psychologists in an online publication promptly.

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Another significant contribution and support for Corona victims & their care givers came from the Ministry of Social Justice and Empowerment: Government of India by way of their helpline *Kiran* under the aegis of 'National Institute of Mental Health Rehabilitation' (NIMHR) where a large group of Clinical Psychologists were also involved in rendering services to those affected with COVID-19. NIMHR is an upcoming new Institute of Govt. of India under the same ministry, with a focus on rehabilitation of severely mentally ill. In the same trend a National Mental Health Support helpline for COVID-19 was initiated by the Ministry of Health & Family Welfare (MOHFW); Government of India (GOI) under the aegis of National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore. In addition, NIMHANS has published more than a handful of COVID 19 Information Resources and Manuals inclusive of the Guidelines for Tele-Psychotherapy Services. All these resources are available at https://nimhans.ac.in/health-information-nimhans/covid19-information/

Apart from this crucial help in the form of counselling, psychological first aid or crisis intervention another priority area related to generation of awareness about pandemic and encouraging COVID-19 appropriate behaviour was well addressed by Ministry of Education (erstwhile MHRD): Government of India. This ministry instructed University departments especially Departments of Psychology to create awareness about COVID-19 focussing on prevention, treatment and after care on massive scale, by way of organizing webinars nationwide, for both public and professionals. Importance of the discipline of Psychology and psycho social care during pandemic was well recognized with an understanding that only medical care is not alone sufficient to win over the COVID-19 pandemic. Organizing Webinars emerged as a suitable strategy to address various issues related to COVID-19 and most of the governmental & non-governmental organizations actively participated in organizing webinars all over the country addressing specific themes related to pandemic at local and regional levels.

India did fairly well in handling COVID-19 pandemic situation in the country and excelled in dealing with the crisis. Frontline health care workers (including doctors & supportive staff) were on the top as the core component of this success. Who are now known as Corona warriors. A comprehensive report published in this issue about care of COVID-19 victims in an institutional set up makes an informative and interesting reading. But even after all the best efforts and investments worldwide to deal with the pandemic, fact still remains that we have to learn to live with COVID-19 till such a time that majority of the world population is not vaccinated. Hence, COVID appropriate behaviour is demand of the day.

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Invited Paper

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Mental Health & the Development Paradigm: Women's Empowerment & Wellbeing

Kiran Rao*

INTRODUCTION

At the outset, I would like to sincerely thank the organizers for inviting me to deliver the keynote address. Today, the need for Consultation- Liaison work has moved far beyond the hospital setting. This is evident from the fact that many of our young colleagues are engaging with professionals in a variety of different settings such as educational institutions, corporate work places, fitness and wellness centers etc. So I thought I would use this opportunity to share some of the work that I am currently engaged in, in the development sector, focusing on women's empowerment and wellbeing.

Just a few words about my transition from a tertiary, well-funded, mental health setting (The National Institute of Mental Health & Neuro Sciences –NIMHANS; www.nimhans.ac.in) to a non-profit, non-governmental organization (NGO; Sampark; www.Sampark.org) where we are constantly trying to raise funds! To many it seemed like a radical departure, but it was actually a natural step in the trajectory that my work had taken me over the years.

I began my career examining the role of stress and coping in mental health. The first learning was that more than life events it is chronic strains that take a toll, and that women bear the brunt of this stress. We are all familiar with the learned helplessness model of depression in the face of chronic stress (Abramson, Seligman & Teasdale, 1978) and the social origins of depression for women in child-bearing years especially from low income groups (Brown & Harris, 1978). The problems of gender inequity are further highlighted by community studies that indicate common mental disorders are much more prevalent in women compared to men, but that women are underrepresented in help seeking and face greater barriers in accessing care (Malhotra & Shah, 2015).

But then there was the flipside. I learnt so much from the women that I saw regularly in the outpatient and in therapy. It is the women who are burdened with the caregiving role and yet adeptly manage with such few resources, often ignoring or understating their own psychological distress and emotional needs (Sharma, Chakrabarti & Grover, 2016). They demonstrate amazing strength in terms of coping skills. Women who are emotionally more resilient usually have large and strong social support networks (Rao, Bhaskaran & Subbakrishna, 2001) and a firm belief and faith in God or a higher power (Rammohan, Rao & Subbakrishna, 2002).

Case discussions with trainees and peers, often centered on factors that make a woman stay in an abusive or dysfunctional relationship, the gender disparities, patriarchal system and other social injustices. The constant reminder that social and economic inequalities embedded in our society are reflected in depression, anxiety and stress related disorders that women experience, made me want to go beyond just the treatment of illness, to prevention of distress and promotion of wellbeing.

In this background, quite serendipitously, almost at the start of the new millennium, I got two opportunities to work in the development sector. In the first instance, while at NIMHANS, I was already associated with Sampark as a board member. Sampark's mission is to improve the lives of poor and vulnerable people, especially women, through a variety of development interventions including income generation, enterprise and skill development and educational interventions. Sampark works primarily through stabilizing women's self-help groups (SHGs) and till date has set up about 1500 SHGs involving 15,000 women in Koppal, Karnataka and Varanasi, Uttar Pradesh. In Karnataka, the SHGs have federated into four self-reliant cooperatives that are registered with the state Government.

In early 2000, we were (and still do) working with rights based issues and income generating activities for Devadasi women in Koppal district, North Karnataka. Devadasi women, mainly from scheduled castes and economically deprived sections, are women married to the local Deity and dedicated to the temple. Although the Devadasi system has been legally abolished, the practice continues under the radar of the law, and these women eventually end up as sex workers for livelihood and survival. Hence, they have a high risk of exposure to sexually transmitted diseases and HIV. The Department of Mental Health Education at NIMHANS, in collaboration with the Ford Foundation, invited proposals for small grants research in the area of sexuality and sexual behaviour. I encouraged our staff at Sampark to apply for a grant to carry out a qualitative study to understand how the Devadasi women met their livelihood needs so that we could develop more appropriate intervention strategies. While the study revealed a wealth of data about the sexual behaviour and practices among the Devadasi women, it also was an eye-opener in many ways (Chidambaranathan & Paul, 2009). Almost all the women interviewed could have been diagnosed as being clinically depressed. The field staff had a tough time handling the emotional outpouring that took place during the interviews and, both the staff and the participants, required a lot of hand-holding and debriefing. It was almost as if the interviews had touched a sensitive chord in the narratives of these women and the flood gates of pent-up emotions had opened. The women reported that these interviews had been cathartic for them as they had not shared their life stories with anyone till now. What was amazing was that, despite such high levels of psychological distress, these women made few demands for themselves, but pleaded that we, at Sampark, should do something to ensure that their children lead a better life with dignity. I realized that this was just the tip of the iceberg and there

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was a lot that needed to be done. Incidentally, as a result of this project, we started working with children as well, but this is not the focus of the present report.

I followed up the Devadasi study with a project focused on developing and integrating a mental health intervention for the women who were part of our SHGs at Sampark. While the field research was funded for three years, the mental health intervention has now become an integral part of our work in the community. I will provide findings from this study later in this report.

The second opportunity presented itself quite out of the blue. The Government of Gujarat received an endowment from the Royal Netherlands Embassy with the explicit purpose of developing community based mental health services to be delivered primarily through NGOs. The Government of Gujarat and the Royal Netherlands Embassy, requested the Indian Institute of Management at Ahmedabad (IIMA) to administer the fund and NIMHANS to provide the technical expertise. As I had previously worked in the area of psycho-social rehabilitation for Government mental hospital settings in Gujarat, I was invited to function as one of the mental health experts to help develop community based mental health intervention strategies (DOHFW, GOG, 2003).

To initiate the work, we addressed about 100 NGOs to assess and evaluate their knowledge of the mental health sector and their willingness to get involved. About 87 NGOs participated in training workshops on mental health care and project management and, finally, 14 NGOs were funded to develop a mental health component that they could integrate in their ongoing service delivery (Bhat, Maheshwari, Rao & Bakshi, 2007a). This was for me, a baptism by fire, presenting both an opportunity and challenge. The passion, commitment and dedication of many of these organizations working in very challenging circumstances and with few resources was a humbling experience and a real source of inspiration. I will briefly share the work carried out by one NGO in the area of interpersonal violence (Bhat, Maheshwari, Rao & Bakshi, 2007b).

I will first present findings from the mental health intervention carried out with rural, poor women in Koppal, North Karnataka.

Poverty & Mental Health

India accounts for one-third of the world's poor, with more than 200 million households living in absolute poverty (National Council of Applied Economic Research, 2010). Globalization and digitalization are resulting in an increasing number of people becoming marginalized and living in poverty. In the organized sector, there are fewer jobs available and these demand a high level of knowledge, skill and competencies. The majority of people in our country still work in the unorganized sector and in agriculture. They struggle daily with financial strain, loan repayments, livelihood volatility, failure of monsoon etc. To live in poverty, is to live in a constant state of social and psychological stress. Poor and marginalized persons specially women are at greater risk of suffering from common mental disorders, stress-related disorders and are at an increased risk for suicide (Lund et al, 2010).

Mental Health Intervention in Micro-Credit SHGs

Micro-Credit SHGs

Poverty, is often, not only due to lack of skills, but the absence of an enabling environment. Economic empowerment has been found to be an important tool to improve quality of life and bio-psychosocial health of women (World Health Organization, 2007). Sampark's work with women's empowerment and poverty alleviation is mainly through micro-credit activity using Self-Help Groups (SHGs) as a platform (Jeyaseelan, 2009). SHGs are small groups comprising of about 15-20 women. Micro-credit involves saving and borrowing small sums of money. It takes almost 1 to 2 years to stabilize a SHG. The SHGs usually meet weekly to save small amounts of money. These savings, along with at times additional funds from the NGO, banks or the Government, are used to disperse small loans to members. The groups are self-governing, with the women deciding their own rate of interest and who will be the beneficiary of the loan (Premchander, Prameela, Chidambaranathan & Jeyaseelan, 2009). Peer pressure ensures timely repayment of loan. Women SHGs are known to default less on their loans. Sampark provides a variety of skill trainings such as numeracy skills, functional literacy, money management, book keeping, vocational skills, enterprise development, legal literacy and other soft skills. One of the key observations at Sampark was that mental health concerns often prevented or hampered the women from making optimum use of their skill trainings.

Mental Health Intervention: Emotion & Problem Focused Coping Skills

The mental health intervention was a ten session module delivered by lay counselors (Prameela, Veena, Rao & Premchander, 2007). Session 1 comprised of an introduction, ground rules, ethical considerations and a general orientation to health concerns and personal hygiene. Session 2 comprised of psycho-education on the mind-body relationship, effects of chronic stress such as financial, interpersonal conflicts etc. Sessions 3 to 8 comprised of ventilation, support and reassurance. Members, in turn, shared their stories and problems, reviewed coping strategies and suggested alternate ways of dealing with the situation. In sessions 9 and10, the process continued and the members identified two women who could function as group facilitators. These two women then underwent further training and in Sessions 11 and 12, the facilitators conducted the session with the lay counselor as an observer.

Implementation Strategy

SHG groups that were stable and meeting regularly for a period of 2 years or more were selected for inclusion in the intervention. All members underwent a medical screening camp so that medical problems were not ignored. These screening camps have now become part of our routine activity whenever we do any work in the community. The mental health intervention was termed as a health meeting. It was decided to hold a health meeting on a fortnightly basis after the economic activity of savings and loans was completed. For the add-on health meeting, participation was voluntary. The session began with a song to facilitate the transition from economic matters to personal concerns. The song, composed and set to tune by Sampark staff, refers to life being a cycle of joy and sorrow and that sharing and

discussing in the group can help one face situations better. Each session concluded with the practice of a breathing based relaxation technique which the women were encouraged to practice daily at home. The first 10 sessions were conducted by the field staff trained in counseling skills, while subsequent sessions were held by the trained group facilitators to ensure sustainability. The mental health intervention was implemented in 114 SHGs and reached out to 1570 women.

Impact of Intervention

The impact of intervention was assessed qualitatively using focus group discussions (Rao, Vanguri & Premchander, 2011). The women reported that micro-credit activity led to an increase in income generating capacity, better participation in decision making in the family and greater respect from spouse, family members and the community at large. The mental health intervention had improved the quality of their sleep, and the women reported feeling less tired and a reduction in aches and pains, worries and distress. Their communication skills had improved and they were more assertive in expressing their needs and demands. More importantly, the women felt that they were not alone and that the group was a source of strong social support. They felt happy and confident and regarded themselves more positively (an increase in self-esteem). Overall, the women viewed the program as being very helpful and requested that the intervention be extended to other SHGs.

The women were also asked to articulate what economic and psychological wellbeing, and a better quality of life meant to them. Their response was interesting to say the least. They said money was important as its purchasing power fulfilled basic needs of food and clothing, and then one could buy a television, mobile phone, mixer-grinder, fan, chair and cot for the house in order to make life comfortable. In due course, one could buy a two-wheeler and even own a house. But then they added, desires are endless and money cannot buy you happiness. Happiness, in their view, was evidenced in harmonious family relationships and having the support of family members; bearing healthy children and children doing well in life; maintaining good relations with neighbors and others in the community, and most importantly, keeping faith in God. For a better quality of life and living, they stated that the village should have better roads and transport services, as well as, educational institutions so that they could send their children to school and college. There should be electricity and water supply, toilet facilities, good sanitation and access to affordable and good health care. The women clearly perceived economic and psychological wellbeing to be interdependent.

This study highlights the need for integrating mental health interventions in development paradigms. The SHG platform offers a cost-effective way to address both mental health needs and poverty alleviation in a holistic and sustainable manner to promote women's empowerment. Empowering women not only improves the quality of their lives, but has a positive impact on other members of the family, especially children (Dreze & Sen, 2005).

I will now present the work carried out by the NGO in Gujarat in the area of interpersonal violence (Bhat et al, 2007b).

Women & Interpersonal Violence (IPV)

India is ranked among the least gender equal countries. Despite rising educational levels among women, there exists a patriarchal system that espouses unequal, rigid and hierarchical gender relations. In India, one-third to half of the women in the community report being victims of violence (National Family Health Survey, 2007). Marital conflict, dowry, sexual problems, infertility, not having a male child, perceived deviation from role as home-maker, substance use and abuse in spouse are frequently cited as possible triggers of domestic violence (Krishnan, Subbiah,Khanum,Chandra & Padian, 2012). However, most often, the perpetrated violence is disproportionate to the trigger. Rural women, those younger in age, women in the early years of their marriage, with low literacy levels and low socio-economic status are at greater risk of being victims of domestic violence (NHFS, 2007). Most women experience high distress and, often, attempt to end their lives, but suffer in silence as they have been socialized to accept, tolerate and even justify violence (Malhotra & Shah, 2015)

Mental Health Intervention in a Legal Aid Center

Legal aid centers were set up by the Government to assist women in the community. They were mandated to provide legal counselling regarding provisions of the law, supportive and crisis intervention. In practice, most centers provide free or low cost legal aid. Some centers have short-stay respite shelters and vocational training to teach women income generation skills in order to become economically independent. In the 25 year history of the NGO that we worked with, despite many women approaching the center in crisis after being victims of abuse, hardly anyone had filed a legal case against the spouse. Fear of losing custody of children, discouraging messages from the family of origin, fear of escalation of violence if they file a complaint, being financially dependent on the spouse and the fear of being more vulnerable as a single women were the reasons cited for not registering a complaint against the perpetrator.

Mental Health Intervention Strategy

The field staff in the NGO were trained in basic individual, couple and family counselling skills (Bhat et al, 2007b). This was because they were already familiar with the households in their community and had a good rapport with the women. Workshops on gender relations, women's health and mental health and intergenerational transmission of violence were conducted. The impact of maternal depression associated with under-nutrition, stunted growth and poor cognitive development in off-spring were some of the other topics highlighted. After the training was completed, the lay counsellors visited the women with known incidents of violence at home. The initial three to five sessions were conducted individually at home. They were then encouraged to visit the center and subsequent sessions were conducted in a group at the center. Participation was voluntary and the groups were kept open-ended. Ventilation, reassurance, identifying strengths, communication skills, coping strategies, and engaging with

the family, especially the spouse, in-laws or adult children, formed a major part of the discussion.

In order to sensitize the community towards mental health issues related to domestic and interpersonal violence, general awareness programs were conducted in the community, with the involvement of prominent community leaders. Workshops and competitions were held in the community for children and adolescents. Songs, puppet shows, skits, games, role plays, drawing, story-telling and henna painting competitions were held to make it attractive for them to attend. The themes were related to family and gender dynamics, interpersonal violence, women's health and mental health. The prize winners were asked to perform or display their work to which the whole community was invited. In many of the paintings, for example, the children had depicted the father with a bottle of alcohol in one hand, beating the mother with the other, and the grandparents as mute spectators. The parents and grandparents realized that the children were caught in this cycle of violence and that it was negatively impacting their health, emotional wellbeing and academic performance.

Impact of Intervention

The intervention reached out to 1500 families (Bhat et al, 2007b). Initially, the formation of the groups was very challenging, as the women were very wary of stepping out of their homes and were fearful of an escalation in domestic violence. However, as the groups were informal and open-ended, the attendance soon improved. They reported feeling more supported, a reduction in their psychological distress and started attending the vocational training center more regularly to improve their income-generating skills. They also discussed that the general awareness programs had had a positive impact on their family members, especially seeing the effect of violence on their children (many of whom suffered from anxiety and stress related symptoms). With improved communication skills and assertiveness, women reported a decrease in domestic violence. In some instances, the women reported that their in-laws and/or spouse had become more cooperative and some of the men had expressed a willingness to seek treatment for their alcohol addiction. As their self-esteem and confidence increased, a few women decided to take legal help to file for divorce, child support and maintenance, something that they were reluctant to do earlier. The NGO already had good networking with police and legal aid organizations. It now also established referral linkages with mental health facilities and de-addiction services.

There are now several program initiatives by women's collectives and community-based organizations to help identify and respond to women who are victims of domestic violence (Inman & Rao, 2017). Some of them are based on the legal aid and counseling model, while most others use an economic empowerment model. More recently, attempts to use an integrated approach have met with greater success (Bhate- Deosthali, Rege & Prakash, 2013). However, while most of these programs have acknowledged that alcohol abuse may be a significant contributor to spousal violence, they have not directly addressed this issue. I will, therefore, briefly focus on some interesting and innovative developments that use a more holistic approach, to deal with the cross-cutting issues of alcohol abuse, interpersonal violence and mental health especially in socio-economically disadvantaged populations.

Mental Health Intervention to Reduce Alcohol Use & Intimate Partner Violence (IPV)

Alcohol use and intimate partner violence (IPV) are interconnected and of significant public health concern. The World Health Organization's recent report (WHO, 2019) includes men's alcohol use as a risk factor for IPV. While clinic and hospital based interventions for reduction in harmful drinking and intimate partner violence have shown some promise (Bhate-Deosthali, Rege & Prakash, 2013; Satyanarayana et al, 2016), extending interventions to the community pose several challenges.

Contingency management, a technique that applies the principle of small financial incentives to promote behavior change in the desired direction, has found some success in resource poor settings. Schilbach (2005) in a study among rickshaw drivers in Chennai found that small financial incentives in exchange for abstaining from alcohol use, significantly reduced day time drinking and increased daily savings by 60%, but did not impact alcohol consumption at other times. In addition, financial incentives alone were not effective in reducing alcohol use over the long term. While there is evidence for effectiveness of couples based therapy (O'Farrell et al, 2004) and Cognitive Behavioural Intervention (Satyanarayana et al; 2016) in reducing alcohol use and IPV in clinic and hospital settings, community based interventions to decrease alcohol use and IPV in under-privileged populations are scarce.

In this context, a recent study carried out, in collaboration with an NGO, in a lower socio-economic area in Bangalore, Karnataka is worth highlighting. The study examined the efficacy of a combined intervention comprising small financial incentives and behavioral couples's therapy in reducing male alcohol abuse and spousal violence. SHGs were the entry point for recruitment. Participants were adult, married women who experienced IPV and perceived their spouses to have harmful use of alcohol. The study team and field staff were trained in identifying mental health issues pertaining to IPV and alcohol use as well as in counseling skills. Referral networks were established for de-addiction services as well as to treat more severe psychopathology (Hartmann et al, 2020).

Sixty couples were randomized into one of the three arms to test the effects of small financial incentives only, financial incentives combined with psychosocial intervention and control condition. The main outcome measures were alcohol use as measured by breathalyzer and violence experienced by female participants using the Indian Family and Control Scale. Results showed that while alcohol use decreased in both the incentives and the combined incentives and psychosocial arms compared to the control condition, there were greater number of abstinent days in the combined arm. Similarly, the violence reported by female participants decreased significantly among the recipients of the combined intervention and the improvement was maintained at 4 months follow up. This study highlights the effective use of trained lay counselors, and collaboration with an NGO that enjoys the trust of the community, in scaling up psychosocial interventions to

address mental health challenges in resource constraint settings.

LESSONS LEARNT & CHALLENGES

Health and mental health are holistic phenomena linked to socio-economic factors and processes in a complex and interconnected manner. Policy makers and health professionals need to look at social and psychological problems such as violence and crime, poor living conditions, chronic ill health, poor cognitive performance and underachievement and reduced wellbeing, not as independent, but inter-dependent concerns. However, in spite of this important link, mental health concerns are typically not addressed in development paradigms and do not form a part of the Millennium Development Goals (MDGs). Admittedly, there are both theoretical and practical challenges in effectively integrating social development and mental health initiatives. Poor mental health results in low levels of success in development initiatives. Madhani et al (2015) reported that poverty alleviation programs alone such as, cash transfer, asset promotion or microfinance need not necessarily improve mental health. However, micro-finance initiatives, along with educational and skill training and mental health interventions are associated with both improved economic and mental health outcomes. SHGs offer an effective platform to launch mental health interventions. What is required are innovative, creative and interactive, participatory teaching learning methods. We need to build capacities of women so that they develop new and more constructive ways of exercising agency.

NGOs working in the area of women's empowerment must also engage with men in their out—reach activities. Historically, we must remember that many social reforms to improve the lives of women in our country were initiated by men: Raja Rammohan Roy and Jyotibai Phule are outstanding examples. All men are not wife beaters and can serve as positive role models and catalysts for change (Inman & Rao, 2017). Often, women focused initiatives, exclude men who can actually be both allies and advocates. Men, as fathers, husbands, sons , relatives, colleagues and community leaders need to be sensitized about gender concerns, if we are to achieve a more balanced, equitable and egalitarian relationship between the sexes.

Women have multiple roles and identities based on gender, caste, class, ethnicity, age, marital status, etc. and hence, there is No One Universal Strategy. There are ethical considerations in implementing community based interventions in marginalized and underserved populations. It is important to win the trust of the community, while recognizing the structural factors that put them at higher risk and make them more vulnerable (Mikesell, Bromley & Khodyakov,2013). A process based, bottom-up approach, where the responsibility of setting the goals, planning, monitoring and evaluating the intervention strategy rests with the women, results in the women taking ownership of the program and ensures sustainability of the impact and outcomes (Mayoux,2003). This has more recently been referred to as user innovation. User innovation is an assets-based model, where the end users are involved in developing solutions to problems facing them, as they have more context specific information and are motivated by the benefit of positive outcomes (Von Hippel, 2018).

THE WAY FORWARD

As mental health professionals and clinical psychologists, we must recognize the vast gap that exists between the need for mental health services and the paucity of trained professionals. In order to reach out to underserved and marginalized communities, we need to build capacities of field staff, lay counsellors and volunteers to deliver low cost mental health interventions. The training needs to encompass a humanistic perspective that is empathic and non-judgmental; a narrative framework that respects women's voices and stories; simple cognitive behavioural techniques such as contingency management, cognitive restructuring, assertive communication and relaxation techniques. We need to equip ourselves, and the organizations that we partner with, in project management and impact assessment skills. Often, NGOs do very good development work at the grass root level, but fail to set up adequate systems for data collection, management and reporting. This hampers their ability to analyse and evaluate the impact of their work and prevents them from being able to leverage their good work to scale or for replication.

CONCLUSION

Women's empowerment and wellbeing encompasses both economic and psychological wellbeing. The former is represented by economic security, work participation and purchasing power, while the latter by self- efficacy, social status, social capital, living conditions and overall quality of life. Integrating mental health interventions in development paradigms will help in making better and rapid progress in achieving the millennium development goals.

In sharing some of my experiences in the development sector as well as some pioneering research work in the area, I hope I have enthused some of you to venture out into newer pastures. I would especially like to remind the highly motivated graduates, post-graduates and young clinical psychologists that mental health is important in every sphere and activity in our lives. Please remember that you are psychologists first, and then clinical psychologists. You have the knowledge and skills to understand the human mind, but you have to learn to adapt and innovate, in order to apply and implement what you have learnt in different and new settings. If you have the passion and dedication, all you have to do is go out there and carve your own space in a sector that is close to your heart.

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Psycho Oration: Women Mental Health

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INTRODUCTION

There is always an interface between women mental health and their psychosocial position in the society. To understand the women's mental health, it is necessary to understand the social, cultural, political, and economic issues of the society or country where they live. Nature (Diverse) and Quantum of problems related to women health , and so many factors and issues related to the psycho-social and political conditions of women, which one comes across professionally and otherwise in day to day matters, that are directly or indirectly related to their mental health portray a need for in depth studies in this field. Further, it is a relatively neglected field, in comparison to other mental health concerns and a very less number of Mental Health Professionals are working in this area, specially for awareness and advocacy of the issues and concerns related to women mental health, that forced me further to take up the field of study. Here, I would like to discuss about the important issues related to women mental health and why a separate focus is required to address these issues. Further, some work which has been done in this area by the author has been summarized in this write up.

Understanding Gender and Its Role in Mental Health

Concept of Gender is different than Biological Sex. Gender is determined not only by biological characteristics assigned at the time of birth, but also by the psychological, social and behavioral factors which a person adopts during the developmental period. It decides the way an individual shapes one's identity and lives throughout the lifetime as Male or Female (Cross & Madsen, 1997). Stewart & McDermott (2004) have further explained the concept that this assignment of Gender, becomes a "master (or meta-) status, through which the roles and position of an individual are determined in the given society. They further explain that this social determination of gender roles provides less position and privileges to women than men in most of the societies, which makes women more vulnerable for discrimination in various rights and responsibilities.

Gender has been explained as a cultural package by Bourne & Russo (1998). Many elements of culture like gendered traits, emotions, values, expectations, norms, roles, environments, and institutions can influence mental health and well-being separately as well as in combination. These elements are interconnected, and can also change and evolve within and across cultures and over time.

The role of gender in understanding mental health is a complex one. There is a need to amend traditional biomedical models of mental health. Using interdisciplinary models, an understanding should be developed where the role of multiple factors like the individual, the family, society and culture need to be studied at multiple levels and from multiple perspectives (Hamilton & Russo, 2006). Chronic social and cultural patterns which include gender role burden in the form of less power and lack of share in family decisions,, inequalities in household work distribution and child care, parenting strains, and lack of affirmation in close relationships, are all found to be related with poor mental health of women. These factors partially mediate the presentation of mental health disorders among women, mainly depression (Nolen-Hoeksema, Larsen, & Grayson, 1999).

Gender Differences

Gender plays a very important role in determining the mental health or mental illness of a person. Men and women are as different biologically and psychologically, as they appear different in their physical appearance. There is a difference in the way they express their emotions, react to any situation, coping styles, maintaining relationships and in many other attributes of life. That's how when we consider studying mental health or the patterns of mental illness among population of any society, a noticeable gender difference is seen between men and women; even when not considering the other gender. Such differences are also seen in Indian society, as been stated by Savita Malhotra & Ruchita Shah (2015) in their article on women and mental health in India. There is a difference in information processing and responses to any situation or stimuli (external or internal) among men and women, as there are actual differences in the structure and wiring of brains. There are further differences in their styles of communication, dealing with various relations, expression of their feelings and emotions, and reactions to stress. Thus, for understanding the role of gender, it is necessary to accept that there are gender differences among men and women not only biologically, but also in their psychological makeup, which makes them different in the expression of their needs, vulnerabilities and overall attitude towards life.

WHO reported (2000, 2004) that there are large differences in the prevalence and presentations of various mental disorders among men and women. These differences have been reported mainly among Common Mental Disorders, like Anxiety disorders and Depressive disorders. There is also a gender difference in the disease burden, as reported by Desjarlais, Eisenberg, Good, & Kleinman (1996). Across all physical and mental illnesses, Depressive disorders have been reported as the fifth greatest disease burden in case of women and seventh greatest burden for men.

New Guidelines for Psychological Practice with Girls and Women are also issued by the American Psychological Association (2006), after identifying the need of separate attention for women of every age. These guidelines are largely based on the new theoretical understandings of gender as well as mental health, which incorporate new perspectives on women's development over the life cycle, their experiences and circumstances.

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Mental Health and Psychological Disorders among Women

The biomedical research establishment in the United States has provided the evidence for gender differences in the brain and behavior of men and women, and emphasized on the role of sex hormones in their researches. Further, the role of social and cultural influences has been highlighted to explain the presence of health disparities among men and women. A public health perspective may be considered to understand and apply it further (Blehar, 2006). The role of genetics and biological factors has been studied and established long back in risk and expression of mental disorders. At the same time the influence of socio cultural factors cannot be denied for enhancing the risk and expression of issues related to mental health among women. These are strongly rooted in their social, cultural, economical and political conditions across cultures and countries. Demyttenaere et al. (2004) & Desjarlais et al.(1996) have listed these global conditions, which include hunger as major factor (affecting at least 60 percent of women in developing countries); inequality in the distribution of educational and economic resources (women being less paid and not getting equal opportunities for education and occupation). There is also a huge burden on women of gender-based violence, including sexual, physical and emotional abuse and partner violence. Then there are other conditions like social disruption which might result due to migration, social conflict, war and natural disasters.

Mental health can not be viewed separately of sociopolitical context of any country, society or culture. McCall (2005) and Russo & Vaz (2001) have also emphasized that the inequalities in exercising power, mechanisms of social control at home, workplace and relationships need to be examined. Also, there is need to study the influence of other socio cultural dimensions, besides gender, like race, class, caste, age, sexual orientation and disability etc. Another explanation for varied rates of prevalence of mental health disorders among men and women given by Eaton et. al. (2012), states that these differences occur because of their latent internalizing or externalizing ability, with women having a higher mean level of internalizing while men showing a higher level of externalizing.

Psychiatric epidemiological data from an Indian study (Sood, 2008) cite a ratio from attendance at public health psychiatric outpatients' clinics in urban India where only one woman for every three men attend the facility. It has been viewed as "under-utilization" by suffering women. Greater stigma attached to women's mental illness in Indian society may be the reason which restricts help-seeking in public health facilities. Secondly, the lower importance accorded to women's health in general, in any average Indian household may restricts women to reach up to any health facility and even more to a mental health facility. Davar BV. (1999), highlighted two decades back, that gender plays the major role in discrepancy between prevalence and utilization of mental health services in India. This lower attendance of women accessing mental health facility might partly be explained by the lack of availability of resources for women in the hospital settings. Till that time, there was a sex-based discrimination in the availability of beds in 'the mental hospitals'; the male: female ratio for the allotment of beds in government mental hospitals with only service was 73%: 27% while those with service, research, and training was 66%: 34%. However, the condition has changed much after two decades, mainly in the specialized tertiary care Neuropsychiatric Institutions situated in major cities, but still a strong gender discrepancy is being observed in the utilization of available mental health facilities. An important social reason may be that women in Indian households are largely dependent on men for travel and finances to avail the mental health facilities, which results in discrepant ratio.

Research Studies by the Presenter/ Author

My early work related to women started with Master's dissertation and it's publication on the topic 'Attitude towards Menstruation among Indian Women' three decades back, where it was observed that how Indian women perceived Menstruation as a taboo and were suffering silently with the problems and discrimination related to it (Goyal, Agarwal & Sharma, 1991). Family environment was found as an important factor among women suffering Tension Type Headache in another study (Kaur et. al., 2011). In collaboration with the colleague of Anthropology, detailed interviews with women suffering with Dementia and their caregivers revealed their un heard and hidden sufferings due to their position in family and society (Singh et.al.,2013). Similarly another piece of work related to the decreased ratio of girl population in some states of India highlighted the role of culture, medical technologies and medicine in the disproportional ratio of men and women (Singh et.al., 2014). Another effort was to study the mental health and quality of life of infertile women (Sharma, Verma & Ahmed, 2018). All these small efforts paved the ground further for studying the intricate web of Bio-Psycho-Socio-Cultural and Political factors around the health and mental health issues of women.

Researches done at IHBAS, Delhi under the guidance of the presenter/ author during last decade are small efforts in the field. These small research studies have been planned to understand the interface between various issues of women and their mental health. Domestic/ Intimate partner violence has been seen as one of the major factor linked with mental health problems/ mental illness in Indian women. Such violence or any form of abuse (mainly sexual and physical) creates a vicious circle in a woman's life. It can work as a causative factor, as has been seen and reported by many women; and it can result in a woman who is suffering with a mental health problem/ illness or Intellectual disability. Violence and neglect of women suffering from mental illness or intellectual disability is commonly seen in Indian society. Either married or single, they are easy prey for family members and society, may be because they cannot take proper care of themselves and may not be able to fulfill the expected roles.

Findings of an exploratory study of Domestic Violence, Life Satisfaction and Marital Quality among married women with Dissociative (Conversion) Disorder conducted by Osunam Pertin & Vibha Sharma (2014), on thirty married women of 20-45 years, who also reported some form of domestic violence, brought out understanding that how domestic violence is related to dissociative

(conversion) symptoms in women, besides affecting their satisfaction towards life and marital quality. Among them Emotional violence was the most commonly reported form of violence, which was reported by every single participant; followed by Intellectual violence, Physical, Sexual and Social violence, which were reported by eighty to ninety five percent women of the sample. Economic violence, which was reported by lesser women also, had a significant percentage, i.e. seventy six. These women reported lower life satisfaction and marital quality. Further analysis of semi structured interview revealed that about half of the women suffered abused by their husbands in front of their children, which significantly enhances their distress. In around sixty percent cases the physical, sexual and social abuse takes place under the influence of alcohol by husband. These women react to abuse by crying, retaliation and returning back to parent's home; neither of which provides a solution, rather enhances their agony, shame, guilt and feeling of helplessness. Around fifty percent of participants also reported suicidal thoughts out of their helplessness in controlling the abuse. The major finding of this study was that a very high percentage of women, almost seventy seven percent, attributed domestic violence and abuse as the major causes for their illness. Abusive behaviour was still ongoing with many of women even after the illness.

Experience and Reporting of Domestic Violence among women is also an important issue. Because of the socio cultural position of women in society, it sometimes takes lots of time and courage to talk about the violence they are experiencing in family. They generally accept it as a part of their role and duty to work for the men in the family and satisfy their various needs, whether it is for husband (mainly), or for father, brother or son; and not being able to fulfil any of their defined duties easily fills them with guilt and regret. Even if they are abused or subjected to any type of violence for not fulfilling their role, they receive it as punishment or destiny. That's how it takes time for realizing them what they are going through is not normal. When they start experiencing the violence, they deny it, and again it takes a lot of time and effort on their part to accept that they are being victim of domestic violence; and further tremendous amount of courage to report it. This becomes one of the major factors affecting their mental health.

Experience of domestic violence was reported with greater frequency in women suffering from depression as compared to their normal counterparts, as reported by Shivani Poornima, Vibha Sharma & N.G. Desai (2015) in their study of experience and reporting of domestic violence in women with depression and to find out the determinants and process involved in the difference in latency period of acceptance and reporting of domestic violence. Some of these women reported that they required facilitation for reporting of domestic violence. Multiple factors were found to play a role in recognition and reporting of the domestic violence. The study helped in understanding that there is greater vulnerability in the women for presence of domestic violence who present with depression, thus it is important that every women presenting to the health care center should be screened for the same and if the women does not report spontaneously then she should be facilitated. It was also found that awareness of multi disciplinary intervention is lacking in public and also among the staff including mental health professionals regarding such socio cultural issues. There should be sensitization and training programs of all categories of mental health professionals to encourage reporting and dealing with issues like domestic violence as a part of management plan of women.

In abusive relationships, or in the relationships where women do not get opportunity to express themselves, may suffer silently. Here, the role of culture was also found significant during detailed interviews with women, diagnosed with Dissociative disorders by Ashti Emran, Vibha Sharma & Ravinder Singh (2018), to understand their Emotional Processing and process of 'Silencing the Self'. Findings revealed inadequate emotional processing characterised by 'signs of unprocessed emotions and 'suppression', and a greater tendency to 'Self silence' in one's relationships. This may lead to various dissociative and conversion states, in order to relieve them from the suppressed desires and conflicts. In Indian culture women are expected to suppress their needs, desires and emotional expressions throughout since childhood to adulthood, so they learn to silence their Self eventually. Further, dysfunctional beliefs and assumptions were found to be related to their patterns of pathways to care (Mehjabin S.Haque, Vibha Sharma & Ravinder Singh 2016). While studying pathogenesis and perception of their dissociative disorder, thirty women diagnosed with Dissociative Disorder, showed high levels of dissociation and emotional variability, which were related to lack of care of women in families, and furtherlack of their participation in decision making regarding their care and treatment. Themes of 'Helplessness' and 'Othering', were further reported by fifteen purposively selected women diagnosed with Dissociative (Conversion) disorder, who were interviewed in detail using Cultural Formulation Interview (CFI) from DSM-V, for a study of Socio- Cultural Formulation in clients with Conversion Disorder by Sheetal A. Lakhani, Vibha Sharma & N.G. Desai (2018). Thematic analysis further revealed perceived social rejection and internalization of the cultural beliefs with need deprivation were as the main subthemes, in this study.

CONCLUSION

There is a need to understand the gender differences in presentation, treatment and outcome of various mental health issues and disorders in society. Gender differences can be seen in the age of onset of symptoms, clinical features, and frequency of symptoms, course of disease, social adjustment and outcome of severe mental disorders. Gender differences are particularly seen in rates of common mental disorders in which women predominate men. The presentation of symptoms of common mental health disorders and higher rate of prevalence among women is largely affected by their socio-cultural and socio-political situation in families and in society at large. It requires focus for interventions which should be based on these factors. Specific focus and efforts are required to address women mental health in India.

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Mental Health and Psychological Well-Being of Nurses in India: A Review

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ABSTRACT

Nurses have always been the fulcrum, the pillar of the healthcare system. Nursing as a profession has always been a very stressful one. In recent years, attempts have been made to recognize the prevalence of mental health issues to avoid the attrition of nurses in India. The World Health Organization (WHO) predicted the shortage of nurses in India by 2020. This paper focused on investigating, analyzing and writing in the past few years on the mental health issues of nurses in the Indian context. The paper identified gaps in research and set out directions for future research.

Keywords: *Mental Health, stress, psychological well-being, nurses, India*

INTRODUCTION

It was estimated that about 66% of health care staff in India are nurses (lndrani, 2004). Their chief roles in health care delivery were classified in terms of prevention, management, care and rehabilitation and all were particularly indispensable for providing quality care service to the patients in hospitals and clinics.

The British introduced nursing professions to India for the first time. However, the evolution of health care practices from ancient times paved the way for the growth of nursing professions, modernization in colonial times, and later a large part of the post-independence health workforce (Gill, 2018).

Patriarchal traditions of India have influenced the existence of women in the nursing profession in the Old & Middle Ages. In India, nursing activities did not take precedence. Treatment was seen as a poor 'dirty work,' involving washing, bathing patients and interactions with body fluids that stigmatized, with 'polluting' aspects comparable to the duties assigned to the lower caste of Indian society. Nursing was thus deemed a low-level assignment (Gill, 2014).

The nursing profession established in India, and many women of lower social classes and castes became nurses only after the accession of colonial rule. The West was primarily responsible for financial and other assistance to nursing and sister-education institutions during the colonial period (Wilkinson, 1958). In 1857, the Indian Mutiny turned Miss Nightingale 's attention on the well-being of the British Army in India. The Royal Commission was commissioned for this purpose in 1859 and a sanitary service was formed in 1868. Ten British trained nurses came to 1ndia to look after them in March 1888.

During the British rule in India, missionary nurses joined the Missions Medical Association in 1905. This was the first step towards institutionalizing nursing in India. Indian nurses were commonly believed to begin around 1867 when missionaries began the systematic training of Indian women as nurses at St. Stephen 's Hospital in Delhi (Wilkinson, 1958). British and Indian Christians were primarily recruited to the nursing profession during the colonial period (Raghavachari, 1990).

After independence, Kerala was India's largest nursing producer. Women from Kerala, as nurses, also have a connection to their progressive attitudes towards women (Abraham, 2004). The Matriarchal system helped women working outside their home in Kerala. Moreover, the gender-based division of labour in medical services has helped to strengthen the care of women. In her Malayali nurses study in New Delhi, Nair (2007) said that women mostly joined the nursing staff because they thought that she was better suited to women. Employment prospects were considered superior as women believed that men were not competitors in this field of work. Women of less well-to-do backgrounds also take care of themselves for financial reasons. Nursing Colleges have paid for the scholarships. The nurses even delayed their marriage in order to pay for their household and college expenses. The nursing career has always been an escape from poverty. Families who could not afford to send their children to their medical schools, particularly their daughters, have chosen nursing as career opportunities for their children. Because of this, nursing has been seen as a low-level occupation for affluent families (Gill, 2009). This usually leads to lower economic strata for nurses in India, mainly women (Nair, 2007).

Factors Affecting the Mental Health of Nurses in India

The health sector in India has been extremely hierarchical. Nurses are actually treated as subordinates to physicians (Nair, 2007). The reputation and respect of physicians differed greatly from that of nurses (Gill 2009). Multiple studies have shown that "weak respect" or "no recognition" for health nurses in both private and public hospitals in India has a significant effect on their psychological well-being. (St. Mary's, 2014). Bad ties with the doctors are the worst reason for nurses to leave the hospitals.

The lack of autonomy, low patient participation due to lack of competence and control have also negated the satisfaction of nurses (Srinivasan & Samuel 2014). The papers show that nurses in India felt they had no support from their superiors to prevent stress and safety (Varma, Vohra, Goswami, Kelling and Khurana 2016). Owing to tension in the relationship, nurses cannot easily cope with work-related stress problems with colleagues or managers and thus, raise their own mental stress.

In developing countries and India, there have been major inequalities in nursing pay scale. The nurse's salary was less than the average of the world nurses. Pay and rewards for the extensive work of the nurses were not adequate. Incentives were unacceptable because it was difficult to achieve a reasonable standard of living only on the basis of their basic salaries (Rawal and Pardeshi, 2014). Low salaries have shown to be a significant factor in the stress and well-being of nurses (Oommen, 1978). Some of the

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major consequences of persistent stress that have, in turn, harmed their mental health which further leads to mistakes, poor decisions, misfortunes, lack of care and accidents (Kane, 2009).

Overtime and long working hours have created a work-life divide that has already begun to affect the health of nurses. Occasionally, the balancing of work life and personal priority becomes a herculean task for the nurses. The personal work is considered to be less important both in the hospital and for the nurses. This induces increased stress, leading to poor mental and physical well-being of nurses (Jennings 2008). Other variables, such as long journeys and unpredictable traffic conditions, were responsible for excessive stress and adversely affected the effectiveness and efficiency of the nurse.

Staff Nurses in India often need to change shift and take part in night emergencies. This transition also reduces well-being and creates cardiovascular conditions of the nurses. Low energy in the night shifts is responsible for medical mistakes, harm and depression. Staff nurses work shifts at night or on weekends and relax during the day. This also leads to reducing of social or family time which in turn has adverse health effects. Overtime and long working hours cause a work-life imbalance that affects the wellbeing and relationship of the nurses both at work and at home.

The staff nurses have also been subject to harassment from patients and their families for their work-related problems. Verbal abuse and animosity of patients and their informants has increased. There were also difficulties in patients and families who were in pain and nurses were under more emotional pressure. The nurses were on the front line in the absence of doctors. In addition, patients entering hospitals were also intimidated, frightened, and resentful of extreme stress. Hospital workers have shown themselves to react with anger and frustration. It's the staff nurses job to ease their disappointment, pessimism and stress. This takes a toll on the nurse health especially their mental health (Srinivasan and Samuel, 2014).

Mostly nurses in India are women. According to the WHO report, almost 90 percent of nurses in South Asia are women, compared to 70 percent in the other regions. (WHO, 2006). In addition to stressors, nurses have endured stress linked with women and overlaps between working women as a result of their profession (Travesso, Rajaraman & Heymann, 2014). The highest suicide rates are recorded for females in the world. Caregivers including nurses in India may therefore be at risk of suicide, particularly if they experience psychosocial problems (Manoranjitham, Rajkumar, Thangadurai, Prasad, Jayakaran & Jacob, 2010). Oornen, Wright and Sratala (2010) said that Indian nurses are mostly depressed because they cannot fulfill their family obligations. In addition, many nurses had to leave to remain with their nursing families.

The physical and psychological well-being is clearly stressful to nursing in India, as they have contributed to heavy workload, poor salary, less recognition than the physicians, rotating night-shifts and work and life balance difficulty and logistics etc.

Mental Health and Psychological Well-Being among nurses in Indian context

Several Indian studies of mental health and mental well-being among nurses have been conducted. A few were reviewed and given below.

A cross-sectional hospital study was conducted in 2010 by 87 randomly selected nurses, Bhatia, Kishore, Anand & Jiloha, in two tertiary hospitals in central Delhi. Data derived from self rating questionnaires. The social and demographic profile, everyday stressors, stressors and overall stress levels of the workplace were also analyzed. Workplace tension reported by 87.4% of the sample nurses. "Time Pressure" was the most stressful factor, while "Discrimination" was the least stressful factor for possible causes of daily stress. Other causes of high stress included: managing multiple life issues at the same time as work, such as child / parent care, self-employment and duty. The most relevant stressor directly related to nursing was "high ability" and "helpfulness of supervisors / senior sisters". Major work stress factors involved learning new things at work and talking to too many patients. Researchers concluded that the tension between nurses was high and that steps to reduce stress had to be taken to address these major stressors.

Sixty nurses from two selected hospitals in Mangalore, India, participated in the Sudhaker & Gomes (2010) research study. In the study, nurses experienced moderate to high levels of stress. There has also been a connection between coping and stress mechanisms. They concluded that coping mechanisms would improve physical and psychological well-being which in turn would increase clinical quality and nursing retention.

Divinakumar, Pcinkala & Das (2014) conducted a government aided nursing study in India. It was cross-sectional survey of the Perceived Stress Scale (PSS-10, Cohen, Kainarck & Mermelstein 1983), the Copenhagen Burnout Inventory (CBI, Kristensen, Borritz, Villadsen & Christensen, 2005) and the General Health Questionnaire (GHQ-28, Hillier & Goldberg, 1978). It was conducted with 603 nurses in 30 central Indian government hospitals. Results showed that 21 percent of nurses were mentally depressed. All in PSS- 10 had a stress ranking of more than 170 nurses (48.32 per cent). Age and service were negatively correlated with stress levels ($p<0.04$). Results from this study also suggest that 21% of the sample had mild mental illnesses, including GHQ-28 anxiety and depression. Burnout was found to be lower in Indian nurses than reported in western countries. Stress and burnout in nurses were higher in nurses aged 31 -50 years.

A 2018 study by Chaudhari, Mazumdar, Motwani & Ramadan at the Bhabha Atomic Research Center was conducted to assess the degrees and reasons of occupational stress among nurses. They also tried to relate stress levels to psychosomatic symptoms. The Extended Nursing Stress Scale (French, Lenton, Walters & Eyles, 2000) was used to test the stress of the sample nurses. Patient Health Questionnaire was used to estimate the degree of somatization (Kroenke, Spitzer & Williams, 2002).

Cronbach alpha analysis, variance analysis and Spearman correlation coefficient tests were used for cross-sectional design results. The findings showed that 51.5 percent of nurses had mild, 34 percent moderate and 2.10 percent extreme stress. Lower pay, patients, families were the main cause of stress at work, even though prejudice has been less affected. Stress levels have been related to serious psychosomatic complaints. Rising psychosomatic symptoms are part of elevated stress. They concluded that employment stress in Indian nurses prevails and can result in mental illness and poor mental health.

The perceived stress was evaluated by Kshetrimayum, Bennadi & Siluvai (2019) in Mysore, India. A cross-sectional analysis was conducted among 500 nurses selected by multi-stage sampling techniques from eight Mysore hospitals. The study lasted 5 months and the response rate was l00%. The perceived stress level (PSS-10, Cohen, Kamarck & Mermelstein, 1983) and the Elevated Nurses Stress Level (ENSS, French, Lenton, Walters & Eyles, 2000) were used as a standardized stress assessment survey. About 55.4 percent of nurses were under moderate stress and 49.8 percent were under moderate stress at work. Stress or work-related stress may have an emotional and physical impact. Consistency and effectiveness of work are directly and indirectly affected by mental well-being.

Davey, Sharma, Davey, Shukla (2019) aimed to find out, (1) the level of stress among staff nurses; (2) the association of socio-demographic factors with work environment and stress and (3) the effect of stress on their mental health in terms of somatic symptoms, anxiety/insomnia, social insecurity, severe depression and occupational effectiveness. Structured cross-sectional evaluation questionnaire was used. The study included 100 nurses of Swami Vivekanand Subharti Medical College, Meerut which is a tertiary care hospital. Data were obtained using a two-part questionnaire: Part I: consists of socio-demographic and work environment variables; Part II: contains a 28-item variant of the GHQ-28, used to assess the psychoactive quality of life of nurses. The stress levels for hospital nurses were mild (12 percent) to moderate / serious (77 per cent). In addition, chronic work stress among nurses had shown acute anxiety, depression, somatic symptoms, and depression. Low wages were the single most important factor among subjects for high stress levels (70 per cent). It was therefore concluded that stress measurement and job satisfaction were not a one-time measure; continuous monitoring and assessment were necessary. It was therefore important to further examine how stress effects their work environment. It was also really important to learn more about their working conditions, stress at work and satisfaction at work. The skills learned can be used to alleviate stress and enhance mental and social comfort.

Research Gap and Scope for Further Research

The analysis indicated a lack of research in India, especially in improving the psychological well-being of nurses. In this context, there was a lack of research. In addition, the results of the researchers concentrated on cross-sectional designs in order to avoid removing the cohort effect. On the other hand, further longitudinal nursing studies are important for the present hour in India because they give a clear picture of the cause and effect of stress and burnout and the welfare of staff nurses. This will aid in the planning and development of intervention initiatives aimed at improving India's nurses' mental health. Therefore, longitudinal methods were required to determine the long-term effects of the nurse's mental health.

In addition, several of these studies have used psychological scales not developed in India but in the Western countries as there is a dearth of scales developed in India. The adequacy of the Western society scale was a matter of concern for quantifying the stress and well-being of the nursing community in the Indian scenario. Nurses may have randomly responded to questions or confused questionnaire elements using the current format. As a consequence, they may have responded to items not circumstances. The need for exclusive measuring instruments was deeply felt based upon the predominant measurements generally employed in the Indian health field.

Most research has taken into account social factors that lead to mental illness. However, the role of personal factors in the maintenance of nurses' mental health in India should also be taken into consideration. This helps incorporate tailor-made plans, mitigating personal variables and leading to poor mental health. Not only nurses as patients but the healthcare system in general will benefit from this. The intervention programs are designed and implemented to relieve stress and improve the health of nurses in order to enhance their efficiency at work.

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Prevalence and Predictors of Psychological Distress, Anxiety, and Depression among Hospitalized Covid-19 Patients in India

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ABSTRACT

Background: While the alarming rise of Covid-19 cases across world and particularly in India, the evidence-based studies on its' impact on mental health of the symptomatic patients hospitalized for treatment are very few till date.

Aim: This study assessed the prevalence and predictors of depression, anxiety, psychological distress, and perceived social support in Covid-19 hospitalized patients.

Materials and Methods: It was a combination of online survey and offline regular survey. The Self-Reporting Questionnaire-20, Hospital Anxiety and Depression Scale, and Multi-Dimensional Social Support Scale were used. Data collection was started from May 2, 2020 and closed on July 2, 2020. A total of 446 (M=356, F=90; Mean age=35.94 years) completed data sheets (repose rate of 59.5%) were received from Covid-19 admitted patients in a tertiary care level hospital in Delhi-NCR.

Results: Prevalence rates of psychological distress, anxiety, and depression among Covid-19 hospitalized patients were found to be 12.56%, 17.49% and 19.28% respectively. Females, patients aged 31-45 years, and lower SES had significantly higher psychological distress as compared to their counterparts. Higher anxiety and depression scores, female gender and low SES were significant risk factors for psychological distress. Psychological distress and depression contributed positively hence were risk factors for increase in anxiety. And psychological distress, anxiety, male gender and lesser age were risk factors for increase in depression. 74% of total Covid-19 patients had high-perceived social support. Other findings were discussed in line with current literature

Conclusion: The findings suggested the prevalence of anxiety, depression and psychological distress to be mild to moderate among the Covid-19 patients. Clinical and Policy implication of all findings are highlighted.

Keywords: Anxiety, Depression, Psychological Distress, Social Support, Covid-19 Patients

INTRODUCTION

There is a consensus on the increase of the psychological burden and public's levels of anxiety-related symptoms in the eventuality of any major infectious pandemic disease occurred in the past such as by SARS (Su et al., 2007) and MERS (Lee et al., 2018). Various such studies also reported mental health problems (Lee et al., 2007; Lu et al., 2006; McAlonan et al., 2007) in general in addition to post-traumatic stress disorder and poor sleep (Kobayashi et al., 2007) and depression was found to be the most prevalent (Mak et al., 2009).

Since the beginning of 2020, the enhancement of knowledge on varied clinical manifestation of the nCov-19 virus, better treatment-management modalities, improved medication, and control of worsening factors is appreciable in terms of improved health outcomes and reducing death rate. However, recent studies on mental health impacts of Covid-19 reported the overall prevalence of GAD (one in three participants-35.1%), depressive symptoms (one in five participants- 20.1%), and sleep quality (18.2%), during COVID-19 (Huang and Zhao, 2020). A Chinese study with 1210 sample from 194 cities reported moderate or severe intensity of psychological impact (53.8%), anxiety (28.8%), depression (16.5%) and stress levels (8.1%) in the participants (Wang et al, 2020a). Females and those who had poor perceived health status reported significantly higher stress, anxiety, and depression. The prevalence of anxiety was in 6.33% and depression in 17.17% respectively in another study reported from China (Wang et al, 2020b). A study from Argentina revealed raised symptoms of depression (27.5%), phobia (41.3%), anxiety (31.8%), obsessive-compulsive behaviours (25.1%) distress in general (27.1%), and Hostility (13.7%) during quarantined period (Fernández, et.al., 2020). A recent Indian online survey among general population (N=1871) reported that 38.2% had anxiety, 10.5% reported depression, however, 40.5% had either anxiety or depression. Further, 74.1% experienced moderate level of stress and 71.7% had poor well-being due to pandemic situation (Grover et.al., 2020). Nevertheless, these are studies primarily on general public and/or health workers. Similarly, in a sample of, another online survey reported

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23.6% (n=81) had self-reported depression and 45.1% (n=155) had self-reported anxiety (Özdin & Özdin, 2020).

Extrapolating from the findings on impact of Covid-19 on general public, it would be prudent enough to anticipate heightened fear, uncertainty, and other negative mental health consequences among the Covid-19 positive and hospitalized patients as the Covid-19 situation is still grim with continuing uncertainty related health outcomes, fear of death/relapse/infecting others, and stigma among public across the world. A recent study with a small sample size (N=61 from Pakistan) reported that a majority (72.1-75.4%) fell within the normal anxiety and stress category. Females experienced significantly higher level of depression, anxiety and stress than males (Raza et al, 2020). Few studies from China reported findings on prevalence of anxiety and depression to be high, although with different assessment tools. While using Hospital Anxiety and Depression Scale (HADS) one study reported the prevalence of self-reported anxiety to be 34.72% and depression to be 28.47% among Covid-19 positive cases (N=144) (Dong et al, 2020), the other study (N=85) by using (PHQ-9 $\geq$ 5) revealed self-reported depression among 45.9% and 38.8% had anxiety (GAD-7 $\geq$ 5) (Hu et al, 2020). Even Covid-19 patients have been found with neurological and neuro-psychiatric complications, such as over a 3-week period, 39 (31%) patients had altered mental status (Varatharaj et al., 2020; Ellul et al., 2020). In addition, Covid-19 can also result in adverse impact on patients with existing mental illness. For example, schizophrenia patients (N=21) suspected and admitted for Covid-19 reported statistically higher stress, depression, anxiety, and poor sleep quality as compared to schizophrenia patients without Covid-19 (N=158) in China. (Liu et.al., 2020). Given the small sample size, the prevalence of important mental health indicators and the risk factors are not well understood. The cultural differences, especially the health care facilities and affordability of Covid-10 specific health care and treatment can bring out lot of changes in the prevalence of mental health indicators. We did a thorough search in PubMed and Google Scholar databases and to our knowledge, apart from the studies included here, no other study on mental health of Covid-19 hospitalized patients is available on till 10th of August 2020. Moreover, not a single study from India is reported on psychological health status of Covid-19 hospitalized patients, therefore, making it imperative to report the findings.

Objectives: Firstly, the study assessed the mental health status and perceived social support of Covid-19 patients during the hospitalization period. Secondly, it examined the factors in prevalence of depression, anxiety, and psychological distress. Thirdly, it attempted to find out the age and gender differences in the prevalence rate of these mental health indicators.

MATERIALS & METHODS

The study had adopted a prospective observational research design to recruit hospitalized Covid-19 patients from a tertiary care level hospital in Delhi-NCR (Ethics approval No-IEC-320/27.04.2020, RP 14/2020). Although, the study was initially planned for an online survey using Google Forms circulated through the WhatsApp number of Covid-19 patients from the hospital list, the patients were given options for both on-line and offline survey. All the tools were available in Hindi and English, and 3 psychiatry post-graduate and senior residents following WHO back translation method did the translation into Tamil. The Google Form was designed in such a way that unless all mandatory items are not filled in it would not allow submission, and only 1 form can be submitted from one number.

Demographic and Brief Clinical Profile

A socio-demographic and brief clinical profile sheet including information on age, gender, marital status, educational qualifications, socio-economic status, job details, history of any pre-existing mental illness in patient before Covid-19, history of mental illness in family members, history of Covid-19 patients in own family/relatives, history of death due to Covid-19, current feelings, etc. was done.

Sample & Sampling:

A convenient sampling method was adopted following inclusion and exclusion parameters as mentioned below:

Inclusion criteria:

a. Male & female adults
b. Conscious COVID-19 patients hospitalized for treatment (Covid-19 patients with mild to moderate symptoms not requiring ICU care)
c. Comorbid health conditions

Exclusion criteria:

d. Patients on ventilators
e. Not consenting to participate

Tools used:

Self-Reporting Questionnaire (SRQ -20) (Beusenberg and Orley 1994)**:** A total of 20 dichotomous (true or false) items assessing psychological distress was included. Researchers have adapted the SRQ to a variety of settings and have validated that it is able to detect common mental disorders across cultural contexts with reasonable accuracy across the world.

Hospital Anxiety & Depression Scale-(HADS):

This scale (Snaith and Zigmond, 1986) contains 14 questions, including 7 each for rating anxiety and depression. The interpretation criteria were same for both the subscales (Normal:0–7, suggestive of presence of depression/anxiety: 8-10, probable presence of depression/anxiety at disorder level: $\geq$ 11). Hindi and Tamil versions were used where needed, though these have not been validated earlier.

Multidimensional Scale for Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, and Farley, 1988): MSPSS is a 12 itemed self- reported psychometrically sound measure of the subjective assessment of the adequacy of received emotional and social support from family, friends and other important people. Each of these three dimensions is assessed with four items on a 7-point Likert type scale (1= very strongly disagree to 7= very strongly agree). A mean scale score between 1-2.9 indicates low support; between 3- 5 is considered as moderate support; and between 5.1-7 indicates high support. The test-retest reliability of MSPSS for friends; family and significant others were .85, .75, and .72 respectively. Assessment of

internal consistency of the MSPSS, via Cronbach' coefficient alpha has been reported by a number of researchers ranging from .77 to .92. Higher score indicated higher perceived social support.

RESULTS

In total, 750 conscious Covid-19 hospitalized patients in a tertiary care level hospital in Delhi-NCR were approached through telephone during 2nd May-2nd July 2020. All of them were given the option of completing the data either online (Google Form sent through WhatsApp) or offline. The study included tools in English, Hindi, and Tamil. Tamil translation and back translation was done by 3 independent residents of Dept. of Psychiatry whose mother tongue was Tamil. A total of 737 patients consented to participate out of which only 13 people completed online data and 724 completed hard copies of data sheets. However, only 446 data sheets complete in all respects were included here for analysis (Excluded= 232 data sheets due to at least one incomplete filled-in or missing scale, 50 invalid data sheets only with filled in socio-demographic without any filled in scale or some items filled in, and 9 data sheets on age criteria (below 18 and above 60 years), thus 291 were excluded. Thus, with a response rate of 59.5%, the final sample included 446 Covid-19 hospitalized patients (Male=356- 78.5%% & Female=90- 21.5%) with a mean age of 35.94 (SD=11.71) with mild to moderate Covid-19 symptoms. A total of 290 (65%) were currently married/in a relationship, 247 (55.4%) had below bachelor's degree of education, 292 (65.2%) had full-time job, and 293 (65.7%) belonged to middle socio-income status (Table-1).

Table-1: Demographic and Clinical Profile of Covid-19 Patients

N=446 (100%)
Age groups (**Mean Age = 35.94**; SD=11.71) 18-30 years=174(39%); 31-45 years=165 (37%) 46-60 years= 96 (21.5%); Above 60 year= 11 (2.5%)
Sex: Male= 350 (78.5%) ; Female= 96 (21.5%)
Relationship Status Currently married/in a relationship =290 (65%) ; Single= 156 (35%)
Education status Below bachelor's degree=247 (55.4%) ≥ Bachelor's degree and above=199 (44.6%)
Employment status No fulltime job=154 (34.5%); Fulltime job=292 (65.2%)
Socio-economic status Upper= 30 (6.7%); Middle= 293 (65.7%); Lower= 123 (27.6%)
Accompanying chronic disease Yes=88 (19.7%); No=358 (80.3%)
Covid-19 in other Family members Yes= 132 (29.6%) ; No=314 (70.4%)
Death due to Coivd-19 in family/relatives Yes=14(3.1%) ;No=432 (96.9%)
Death due to other reasons during Covid-19 Yes= 15 (3.4%); No=431 (96.6%)
Family history of Mental illness Yes=5 (1.1) ; No=441 (98.9%)

Self-Reporting Questionnaire-20

Table-2 presented that the prevalence of psychological distress on SRQ-20 among Covid-19 hospitalized patients was found to be around 12.56% as per Indian cut off value (Deshpande et al., 1989) of 8 and above. It was revealed from Table-3 that while 8.9% males were above cutoff on SRQ, 26% of female Covid-19 patients were above the SRQ cut off for Indian population. Table-4 revealed that the males (Mean=2.24, SD=2.78) and females (Mean=3.96, SD=4.53) differed significantly in reporting psychological distress ($t=4.58$, $p<0.00$). Significant mean difference ($t'= 2.21$, $p< 0.02$) was found between the SRQ score of Covid-19 patients aged 31-45 years (n=165, Mean=3.05 SD=3.69) and 46-60 years (n=96, Mean=2.05 SD=3.21). The mean SRQ score of patients in lower SES (Mean=3.5, SD=3.64) was significantly higher ($F=7.88$, $p<0.00$) than the patients either in middle (Mean=2.36, SD=3.19) or in upper SES (Mean= 1.30, SD=2.00). Thus, these findings suggested that females, patients aged between 31-45 years, and lower SES had significantly higher psychological distress as compared to their counterparts.

Table-2: Severity on SRQ, HADS, and MPSSS

Variables	
Self-reporting Questionnaire (SRQ)	Above Cutoff n= 56 (12.56%); M = 9.50 SD=2.7 Below Cutoff n=390 (87.44%); M=1.62, SD=1.90
Hospital Anxiety and Depression Scale-Depression: HADS D	Normal n= 360 (80.72%); M = 2.95 SD= 2.25 Mild n= 61 (13.68%); M= 8.66, SD=.772 Moderate n= (5.38%); 24 M = 11.96, SD= 1.16 Severe n=1 (0.3%); M= 15
Hospital Anxiety and Depression Scale-Anxiety: HADS A	Normal n= 368 (82.51%); M= 2.96, SD= 2.25 Mild n= 54 (12.1%); M= 8.91, SD= .806 Moderate n= 23 (5.2%); M= 12.22, SD=.998 Severe n= 1 (0.3%); M= 16.00
Multidimensional Perceived Social Support Scale: MPSSS	Mean = 5.50, SD= 1.50 Low Support= 37 (8.3%) Moderate Support= 79 (17.7%) High Support= 330 (74%)

Table-5 presented the findings of the stepwise regression model for SRQ, which was significant ($F= 263.18$; $Sig= 0.000$) with an R^2 of 0.455 indicating that the model has satisfactory explanation power for explaining the SRQ scores. Findings of a regression analysis revealed that HADS A ($\beta = .61$, $p = .000$), HADS D ($\beta = .24$, $p = .000$), gender ($\beta = .19$, $p = .000$), and socio-economic status ($\beta = -.11$, $p =.002$) were found to be as significant risk factors to predict psychological distress. Although HADS anxiety contributed 61% of variance alone, combined with HADS depression they together contributed 71%, thus, 10% variance was added alone by HADS anxiety of the Covid-19 patients. Similarly, another 18% of variance was contributed by gender, thus making the total variance to 89%. SES contributed another 11% variance to SRQ. While HADS anxiety, HADS depression, and gender contributed positively, SES contributed negatively to psychological distress of the Covid-19 patients. This implied that that rise in HADS anxiety and depression scores increased psychological distress in the respondents and female gender and low SES were risk factors for psychological distress.

Table-3: Mental Health Profile across Socio-demographic variables

	HADS (A)				HADS (D)				SRQ		MPSSS		
	Normal f (%)	Mild f (%)	Moderate f (%)	Severe f (%)	Normal f (%)	Mild f (%)	Moderate f (%)	Severe f (%)	Above Cutoff f (%)	Below Cutoff f (%)	Low SS f (%)	Moderate SS f (%)	High SS f (%)
Male	297 (84.9%)	39 (11.1%)	13 (3.7%	1 (.3%)	280(80%)	50 (14.3%	19 (5.4%)	1 (.3%)	31 (8.9%)	319 (91.1%)	4 (6.9%)	59 (16.9%)	267(76.3%)
Female	71 (74%)	15 (15.6%)	10(10.4%	Nil	80 (83.3%)	11 (11.5%	5 (5.2%)	Nil	25 (26%)	71 (74%)	13(13.5)	20(20.8%)	63 (65%)
16-30yrs.	145 (83.3%)	22(12.6%)	6(3.4%)	1(.6%)	139(79.9%)	26(14.9%)	9(5.2%)	Nil	20(11.5%)	154(88.5%)	17(9.8%)	33(19%)	124(71.3%)
31-45 yrs.	136(82.4%)	16(9.7%)	13(7.9%)	Nil	126(76.4%)	27(16.4%)	11(6.7%)	1(.6%)	26(15.8%)	139(84.2%)	11(6.7%)	28(17%)	126(76.4%)
46-60 yrs.	79(82.3%)	14(14.6%)	3(3.1%)	Nil	85(88.5%)	7(7.3%)	4(4.2%)	Nil	8(8.3%)	88(91.7%)	8(8.3%)	16(16.7%)	72((75%)
Above 60	8(72.7%)	2(18.2%)	1(9.1%)	Nil	10(90.9%)	1(9.1%)	Nil	Nil	2(18.2%)	9(81.8%)	1(9.1%)	2(18.2%)	8(72.7%)
Married	239(82.4%)	35 (12.1%)	15 (5.2%	1(.3%)	241 (83.1%)	34 (11.7%	15 (5.2%)	Nil	33 (11.4%)	257 (88.6%)	20(6.9%)	50(17.2%)	220(75.9%)
Single	129 (82.7%)	19 (12.2%)	8 (5.1%)	Nil	119 (76.3%)	27 (17.3%	9 (5.8%)	1 (.6%)	23 (14.7%)	133 (85.3%)	17(10.9)	29(18.6%)	110(70.5%)
<Bachelors	200 (81%)	32 (13%)	15(6.1%)	Nil	188 (76.1%)	38 (15.4%	20 (8.1%)	1 (.4%)	36 (14.6%)	211 (85.4%)	21(8.5%)	47(19%)	179(72.5%)
≥Bachelors	168 (84.4%)	22 (11.1%)	8 (4%)	Nil	172 (86.4%)	23 (11.6%	4 (2%)	Nil	20 (10.1%)	179 (89.9%)	16(8%)	32(16.1%)	151(75.9%)
Low SES	90(73.2%)	22 (17.9%)	11 (8.9%	Nil	88 (71.5%)	23 (18.7%	11 (8.9%)	1 (.8%)	24 (19.5%)	99 (80.5%)	8(6.5%)	19(15.4%)	96(78%)
Middle SES	253(86.3%)	29 (9.9%)	10 (3.4%	Nil	247 (84.3%)	34 (11.6%	12 (4.1%)	Nil	31 (10.6%)	262 (89.4%)	27(9.2%)	52(17.7%)	214(73%)
Upper SES	25 (83.3%)	3 (10%)	2(6.7%)	Nil	25 (83.3%)	4 (13.3%)	1 (3.3%)	Nil	1 (3.3)	29 (96.7)	2(6.7%)	8(26.7%)	20(66.7%)

Note: Abbreviations: SES-socio-economic status, HADS-Hospital anxiety and depression scale, (A)-Anxiety, (D)-Depression, SRQ- Self-report questionnaire, MPSSS-Multidimensional perceived social support scale.

Table-4: Mean differences on SRQ, HADS, and MPSSS

	HADS (A)			HADS (D)			SRQ			MPSSS		
	Mean & SD	T test/F test	P Value	Mean & SD	T test/F test	P Value	Mean & SD	T test/F test	P Value	Mean & SD	T test/F test	P Value
Male (N=350)	M=4.08 SD=3.31	T =1.24	.216	M=4.27 SD=3.51	T = .303	.762	M=2.24 SD=2.78	T =4.58	.00	M=5.58 SD=1.43	T=2.30	.02
Female (N=96)	M=4.57 SD=3.51			M=4.15 SD=3.13			M=3.96 SD=4.53			M=5.19 SD=1.69		
18-30yrs. (N=174)	M= 4.34 SD=3.33	F=.468	.705	M=4.28 SD=3.39	F=.604	.612	M=2.44 SD=2.91	F=2.26	.08	M=5.54 SD=1.57	F=.142	.935
31-45 yrs. (N= 165)	M=4.21 SD= 3.66			M=4.43 SD=3.66			M=3.05 SD=3.69	(T test between group 2 and 3)	.02	M=5.53 SD=1.44		
46-60 yrs. (N=96)	M=3.83 SD=3.45			M=3.84 SD=3.10			M=2.05 SD=3.21	T=2.21		M=5.55 SD=1.37		
Above 60 (N=11)	M=4.36 SD=3.93			M=4.18 SD=3.18			M=3.36 SD=3.50			M=5.37 SD=1.50		
Married (N=290)	M=4.14 SD=3.53	T = .373	.71	M=4.05 SD=3.32	T= 1.58	.114	M=2.40 SD=2.40	T=1.79	.07	M=5.59 SD=1.46	T=1.79	.07
Single (N=156)	M=4.27 SD=3.30			M=4.59 SD= 3.59			M=2.99 SD= 3.55			M=5.32 SD=1.55		
<Bachelors (N=247)	M=4.40 SD=3.44	T= 1.30	.191	M=4.55 SD=3.17	T= 2.11	.03	M=2.79 SD=3.37	T=1.43	.151	M=5.50 SD=1.53	T=.003	.998
≥Bachelors (N=199)	M=3.92 SD=3.45			M=3.86 Sd=3.0			M=2.38 SD=3.22			M=5.50 SD=1.46		
Low SES (N=123)	M=5.07 SD=3.71	F=5.77	.003	M=4.85 SD=3.93	F=2.67	.07	M=3.50 SD=3.64	F=7.88	.000	M=5.59 SD=1.45	F=.298	.742
Middle SES (N=239)	M=3.87 SD=3.28			M=4.00 SD=3.18			M=2.36 SD=3.19			M=5.46 SD=1.54		
Upper SES (N= 30)	M=3.67 SD=3.37			M=4.07 SD=3.31			M=1.30 SD=2.00			M=5.48 SD=1.32		

Note: Abbreviations: SES-socio-economic status, HADS-Hospital anxiety and depression scale, (A)-Anxiety, (D)-Depression, SRQ- Self-report questionnaire, MPSSS-Multidimensional perceived social support scale.

Hospital Anxiety and Depression Scale (and 3)
Table-2 showed that more than 80% of patients were in the normal range of both anxiety and depression subscales of HADS. Thus, the prevalence rate of anxiety and depression screened on HADS was found to be 17.49% and 19.28% respectively. For the total sample, the prevalence rate of mild (12.1%), moderate (5.1%) and severe (0.3%) anxiety; and the prevalence rate of mild (13.68%), moderate (5.38%), and severe depression (0.3%) was reported. Interestingly, anxiety was more prevalent in female (26%) as compared to 12.1% male patients, whereas depression was prevalent more in male (20%) as compared to 16.7% of female patients. However, Table-4 indicated that males and females did not differ significantly on any subscales of HADS.

Table 5: Stepwise Linear Regression on Self-Reporting Questionnaire (SRQ)

	Unstandardized Coefficient		**Standardized Coefficient**		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	.155	.196		.790	.430
HADS (A)	.585	.036	.61	16.223	.000
HADS (A) & HADS (D)	.448	.044	.47	10.121	.000
	.227	.045	.24	5.084	.000
HADS (A), HADS (D), & gender	.429	.043	.45	9.937	.000
	.241	.043	.25	5.566	.000
	1.528	.287	.19	5.326	.000
HADS (A), HADS (D), gender, & SES	.412	.043	.43	9.577	.000
	.241	.043	.25	5.622	.000
	1.610	.285	.20	5.645	.000
	-.689	.216	-.11	-3.193	.002
Dependent Variable: SRQ; R^2: 0.455					

Note: Abbreviations: SES-socio-economic status, HADS-Hospital anxiety and depression scale, (A)-Anxiety, (D)-Depression, SRQ- Self-report questionnaire.

According to Table-3, prevalence of mild anxiety was highest in patients aged 46-60 years (Mild-14.6% and moderate-3.1%) followed by the patients' aged 18-30years (Mild -12.6%, moderate-3.4%, and severe- 0.6%) and 31-45 years (Mild- 9.7% and moderate-7.9%) Although, the prevalence was highest for patients above 60 years (Mild-18.2% and Moderate-9.1%), as the sample size was small the findings can be read cautiously. Prevalence of mild depression was found to be highest in the age group of 31-45 years (16.4%) followed by 18-30 years (14.9%), $\geq$60 (9.1%) and 46-60 (7.3%). In addition, prevalence of moderate depression was also highest (6.7%) for patients aged between 31-45 years.

Interestingly, table-3 also revealed that the prevalence of mild and moderate anxiety among the currently married/in relationship (Mild-12.1%, moderate- 5.2%) and those who were single/not in any relationship (Mild-12.2%, moderate-5.1%) was almost equal. And the prevalence of mild and moderate depression was more among the currently single/not in a relationship (Mild-17.3%, moderate-5.8%, severe-0.6%) as compared to the patients who were married or in a relationship (Mild-11.7% and moderate-5.2%).

It was found from table-3 that, mild anxiety was marginally more prevalent among patients who had lesser educational qualifications (Mild-13%, moderate 6.1%, and severe-0.5%) as compared to patients (Mild-11.1% and moderate-4%) who had graduation and above educational qualifications. Table-4 presented the mean HADS depression score of patients who were not graduates (Mean=4.55, SD=3.17) to be significantly higher (t=2.11, $p<0.03$) than the patients were graduates and above. Thus, it implied that less educated Covid-19 patients had significantly higher levels of depression as compared to their higher educated counterparts.

Lastly, Table-3 indicated that patients in lower socio-economic status (SES) reported higher prevalence of mild (17.9%) and moderate (8.9%) anxiety as compared to patients belonged to middle (mild-9.9% and moderate-3.4%) and upper (mild-10% and moderate-6.7%) SES. Similarly, prevalence of mild depression was highest among patients in lower (18.7%) followed by upper (13.3%) and middle (11.6%) SES. Table-4 revealed that the mean HADS anxiety score of patients in lower SES (Mean=5.07, SD=3.71) was significantly higher (F=5.77, $p<0.003$) than the patients either in middle (Mean=3.87, SD=3.28) or in upper SES (Mean= 3.67, SD=3.37). Thus, it indicated significantly higher anxiety in lower SES as compared to middle and upper SES.

Table-6: Stepwise Regression on HADS Anxiety

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.530	.165		15.331	.000
	SRQ	.636	.039	.610	16.223	.000
2	(Constant)	1.386	.187		7.398	.000
	SRQ	.419	.041	.402	10.121	.000
	HADS (D)	.403	.040	.401	10.082	.000
Dependent variable: HADS A; R^2 =0.489						

Note: Abbreviations: HADS-Hospital anxiety and depression scale, (A)-Anxiety, (D)-Depression, SRQ- Self-report questionnaire.

Table-6 presented the findings of the stepwise regression model for anxiety domain in HADS, which was significant (F= 263.82; Sig= 0.000) with an R^2 of 0.489 indicating that the model had satisfactory explanation power for explaining the HADS anxiety scores. Thus, according to the findings of multiple linear regression analysis evaluating risk factors for anxiety, SRQ or psychological distress (β =.61, p = .000), and HADS D (β = .40, p = .000) were found to predict higher anxiety in Covid-19 patients. Although SRQ contributed 61% of variance alone, combined with HADS depression they together contributed 80%, thus, 19% variance was added alone by HADS depression of the Covid-19 patients. Both SRQ and HADS depression contributed positively to anxiety of the Covid-19 patients. This implied that that rise in psychological distress and depression scores increased anxiety in the respondents thus, were risk factors for increase in anxiety.

According to the findings presented in Table-7, the stepwise regression model for depression domain in HADS, which was significant (F= 262.18; Sig= 0.000) with an R^2 of 0.421

indicating that the model had satisfactory explanation power for explaining the HADS depression scores. Thus, HADS anxiety (β = .61, p = .000), SRQ (β = .24, p = .000), Gender (β = - 0.1, p = .000) and Age (β = -.01, p = .000) were found to predict higher depression in Covid-19 patients. While SRQ and HADS anxiety contributed positively to depression of the Covid-19 patients, gender and age contributed negatively. Importantly, male gender and lesser age were risk factors for increase in depression.

Table 7: Stepwise Regression on HADS Depression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.705	.203		8.409	.000
	HADS (A)	.605	.037	.609	16.192	.000
2	HADS (A)	.463	.046	.466	10.082	.000
	SRQ	.243	.048	.235	5.084	.000
3	HADS (A)	.452	.046	.455	9.867	.000
	SRQ	.272	.049	.262	5.566	.000
	Gender	-.807	.312	-.097	-2.590	.010
4	HADS (A)	.455	.046	.458	9.972	.000
	SRQ	.265	.049	.256	5.436	.000
	Gender	-.901	.314	-.108	-2.874	.004
	Age	-.482	.227	-.078	-2.126	.034

Dependent Variable: HADSD; R^2 =0.421

Note: Abbreviations: HADS-Hospital anxiety and depression scale, (A)-Anxiety, (D)-Depression, SRQ- Self-report questionnaire

The correlation analysis between age and HADS depression also revealed the same trend suggesting that increase in age was associated with decrease in depression (r= -.12, p< 0.01).

Table 8: Stepwise Regression on MPSSS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	68.590	1.070		64.087	.000
	SRQ	-.985	.254	-.181	-3.877	.000

Dependent Variable: MPSSS; R2-.033

Note: Abbreviations: SRQ- Self-report questionnaire, MPSSS-Multidimensional perceived social support scale.

Perceived Social Support

Table-2 revealed that a significant section of total Covid-19 patients (74%) was found to have high-perceived social support with a mean of 5.50. This was followed by low (8.3%) and moderate social support (17.7%). Table-3 revealed that while 76.3% of males had perceived higher followed by moderate (16.9%) and low (6.9%) social support, 65% of females perceived high social support followed by 20.8% perceived moderate and13.5% perceived low social support. Table-4 showed males (Mean=5.58, SD=1.43) perceiving significantly higher (t'=2.30, p<0.02) amount of social support available to them during the Covid-19 hospitalization as compared to the female (Mean 5.19, SD=1.69) patients. The correlation analysis suggested a significant negative association with anxiety (r= -.172, p< 0.01) and depression (r= -.11, p< 0.05) on HADS. This further indicated that increased social support decreased both anxiety and depression.

Social support did not emerge as a significant predictor of psychological distress, anxiety, and depression. However, stepwise regression model for perceived social support indicated psychological distress as measured through SRQ was the only significant (F= 15.033; Sig= 0.000) predictor of perceived social support with an R^2 of 0.033 indicating that the model had satisfactory explanation power for explaining the MPSSS scores (Table-8). The findings evaluating risk factors for perceived social support indicated psychological distress (β = -.18, p = .000) as a significant predictor. The negative contribution of SRQ towards perceived social support suggested that higher psychological distress was risk factor for lower social support.

Summary of Key Findings

1. The sample consisted of 78.5% males and 21.5% females.
2. The average age was 35.94 years for the sample.
3. Prevalence rates of psychological distress, anxiety, and depression among Covid-19 hospitalized patients were found to be 12.56%, 17.49% and 19.28% respectively.
4. Females, patients aged 31-45 years, and lower SES had significantly higher psychological distress as compared to their counterparts. Higher HADS anxiety and depression scores, female gender and low SES were significant risk factors for psychological distress.
5. The prevalence rate of mild, moderate and severe anxiety was 12.1%, 5.1%, and 0.3% respectively; and the prevalence rate of mild, moderate, and severe depression was 13.68%, 5.38%, and 0.3% respectively for the total sample. Interestingly, anxiety was more prevalent in female (26% vs 12.1%) patients, whereas depression was prevalent more in male (20% vs 16.7%) patients. However, males and females had statistically same levels of anxiety or depression on HADS.
6. While Covid-19 patients with lower education were significantly more depressed than the patients with graduation and above education, significantly higher anxiety was present in lower SES as compared to middle and upper SES.
7. Regression analysis revealed that psychological distress and depression contributed positively, hence were risk factors for increase in anxiety. However, psychological distress, anxiety, male gender and lesser age were risk factors for increase in depression.
8. A significant section of total Covid-19 patients (74%) was found to have high-perceived social support. Males perceived significantly higher social support available to them during the Covid-19 hospitalization as compared to the female patients. Increased social support was correlated significantly with decreased anxiety and depression. Nevertheless, higher

psychological distress was risk factor for lower social support.

DISCUSSION

The sample had a more than 3 times males (78.5%) than female (21.5). The average age was 35.94. This finding is as per the existing literature supporting Covid-19 affecting more males than females and the average age of covid-19 patients to be around 35-40.

Prevalence rates of psychological distress, anxiety, and depression among Covid-19 hospitalized patients were found to be 12.56%, 17.49% and 19.28% respectively. Although the reported studies on prevalence of anxiety and depression among the public during Covid-19 period (35.1% and 20.1% respectively in Huang and Zhao, 2020); and health care workers directly working with Covid-19 patients (Jianbo et al., 2020); and Covid-19 patients (especially 34.72% and 28.47% respectively on HADS by Dong et al, 2020; and 45.9% reported depression (PHQ-9 $\geq$ 5), and 38.8% had anxiety (GAD-7 $\geq$ 5) (Hu et al, 2020) the prevalence rate was remarkably less in our study. This could be explained in terms of small sample size of Covid-19 patients (two studies had <100 Covid-19 patients and one had <150 sample), and mixture of hospitalized and non-hospitalized Covid-19 patients participated in those studies.

Females, patients aged 31-45 years, and lower SES had significantly higher psychological distress. This finding on females was similar to a study reported from Pakistan (Rza et al, 2020) which suggested that higher HADS anxiety and depression scores, female gender and low SES were significant risk factors for psychological distress. If we extrapolate findings of a study done on general public during Covid-19 (Wang, Di, Ye, and Wei, 2020) reporting people $\leq$ 40 years old had an increased risk of anxiety than those more than 40 years. Thus, younger people had perhaps less anxiety handling ability, which can result in more psychological distress.

The mild, moderate and severe anxiety prevalence rate were 12.1%, 5.1%, and 0.3% respectively; and depression prevalence was 13.68%, 5.38%, and 0.3% respectively for the total sample. Interestingly, anxiety was more prevalent in female (26% vs 12.1%) patients, whereas depression was prevalent more in male (20% vs 16.7%) patients. This finding could be attributed to the fact that women in general have intense involvements in performing their social, household, and caregiving roles which can elevate the stress level and ultimately women are more prone to anxiety. And being hospitalized due to Covid-19 could have affected their homes, family, and social role more adversely, which could have resulted in more anxiety. Prevalence of anxiety more in females in our study could lay its support to an earlier study (Wang, Di, Ye, and Wei, 2020) reporting female anxiety risk to be 3.01 times higher than males among common public during Covid-19 epidemic. However, there was no statistically significant difference they were similar in terms of their experience of anxiety and depression.

The finding of Covid-19 patients with lower education found to be significantly more depressed than the patients with graduation and above education was contrast to a study reporting highly educated people were more depressed during Covid-19 epidemic (Wang, Di, Ye, and Wei, 2020). The finding of significantly higher anxiety was present in lower SES as compared to middle and upper SES was in line of a recent study reporting consistent association of social determinants such as poverty with more Covid-19 vulnerability and morbidity (Yancy, 2020).

Regression analysis revealed that psychological distress and depression contributed positively, hence were risk factors for increase in anxiety. However, psychological distress, anxiety, male gender and younger age were risk factors for increase in depression. Our finding was partially corroborated with a study reporting gender, age, and social support were associated with anxiety for COVID-19 patients; and age, family infection with SARS and social support (β =-2.236, $p < 0.001$) were the risk factors for depression (Dong et al, 2020). Negative effects of hypochondriasis and higher anxiety perhaps affected overall health and well-being of people at risk of the epidemic (Duncan et al. 2009; Pappas et al. 2009; Ropeik 2004). A part of this finding is contradictory to a recently published paper (Jianbo et al., 2020) reporting female gender was at higher risk of severe symptoms all such mental conditions and symptoms. This difference could be attributed to difference in sample (Covid-19 hospitalized patients in our study vs health care workers), scales used to screen (HADS in our study vs PHQ-9 and GAD-7) and sample constituent (Males constituted more than 75% of sample in our study vs females constituted more than 75%). Further the younger age group was more vulnerable to depression was also supported by Huang and Zhao (2020) study on prevalence of depression among public.

A significant section of total Covid-19 patients (74%) was found to have high-perceived social support. Males perceived significantly higher social support available to them during the Covid-19 hospitalization as compared to the female patients. Increased social support was correlated significantly with decreased anxiety and depression. Nevertheless, higher psychological distress was risk factor for lower social support. Our findings were similar to earlier studies reporting social support to have a positive role in reducing anxiety of people under stress, thus decreasing psychological distress [Xiao, 2020, Jacobson, Lord, Newman, 2017]. Studies have found that low levels of social support are potential risks factors of developing depression and anxiety symptoms in the eventuality of stress exposure [Guntzviller, Williamson, Ratcliff, 2020], and that social support can be an important contributor to promote mental health [Gu, et al, 2016] even when the stressor is being a hospitalized of Covid-19 pandemic.

In nutshell, as contrast to reported studies done among public and health workers in Covid-19 epidemic, the anxiety, depression, and psychological distress prevalence rate in our study came out to be mild-to-moderate among the Covid-19 hospitalized patients. However, this is in line of a recent study with a small sample size (N=61 from Pakistan) reported that a significant portion of Covid-19 patients i.e., 72.1% reported depression and 75.4% fell within the normal anxiety and stress category (Rza et al, 2020). This was a very crucial finding, and this could be due to reason that the entire hospital stay and treatment (boarding, lodging, medication, treatment, other services)

are free of cost for all patients (irrespective of status of health insurance) receiving treatment at public hospitals in India. This might have reduced significant amount of anxiety and psychological distress among the patients. In other words, zero financial burden for all patients might have acted as a strong social support mechanism, hence buffering anxiety, depression, and psychological distress. More than 80% of our Covid-19 patients were within the normal range of anxiety, depression, and psychological distress. As per a systematic review and meta-analysis (Rogers et al., 2020), similar to SARS or MERS, recovery of Covid-19 patients may not lead to significant mental health conditions. However, the possibility of depression, anxiety, fatigue, post-traumatic stress, poor sleep quality, irritability, and rarer longer term neuropsychiatric problems cannot be clinically ruled out, hence clinician's vigilance for such conditions is required.

LIMITATIONS

This study had few limitations. Firstly, the sample was drawn from one of the best ranked tertiary care level hospital dedicated to Covid-19 patient care, thus limiting the generalization of our findings to hospitals that are less resource rich for catering to covid-19 patients. Comparison of prevalence rates of anxiety, depression, and psychological distress among Covid-19 hospitalized patients in other parts of the country or other countries is worth further investigation. Secondly, in the absence of a comparative group it was difficult comment whether our findings with Covid-19 patients are due to the covid-19 induced mental health impacts. Thirdly, we were also unable to distinguish preexisting mental health conditions from vs Covid-19 induced extra symptoms or rate of aggravation. Fourthly, despite a response rate of 60%, a situation where the non-respondents had higher levels of stress or not at all stressed and therefore not interested in responding in this study can result in some response bias in this study. Fifthly, patients who were screened for anxiety and depression through self-reported tools should also have been clinically evaluated for better diagnostic outcomes.

IMPLICATIONS OF FINDINGS

As India is now globally at number 3 country as per Covid-10 world statistics, our findings will provide vital guidance for the development of a psychological and psychiatric support strategy for hospitals with and without better health care resources. Clinical and policy implications of our study are many. First, health care providers need to identify high-risk groups based on socio-demographic risk factors through baseline screening of anxiety, depression, and psychological distress so as to address for early psychological interventions at the hospital level and even for long-term clinical/research follow up. Our study suggested that female Covid-19 patients had higher psychological distress and at risk of anxiety disorders which partially corresponded to earlier epidemiological findings suggesting women as a higher risk group for depression although in community samples (Lim, 2018).

Secondly, the content of psychological interventions (for example online and offline CBT or Supportive Stress Management Counselling) needs to be modified to suit the needs of the Covid-19 during the epidemic. Customized on line or telephonic CBT should preferably be delivered to avoid the spread of infection.

Thirdly, all hospitalized Covid-19 patients should be ideally screened for risk to be mentally ill or exacerbation of existing mental illness to provide holistic Covid-care as the fear and apprehension of worsening/death could be severe among them.

CONCLUSION

The study assessed prevalence of anxiety, psychological distress and depression among Covid-19 hospitalized patients in India. The findings suggested the prevalence of anxiety, depression and psychological distress was present in mild to moderate extent among the Covid-19 patients. Patients from low SES, low education level, and low social support were risk factors for poor mental health outcomes. Compulsory screening of mental health during hospital stay of all Covid-19 patients can help in preventing symptoms development or worsening (new or old symptoms) through online psychological and psychiatric interventions. Impact of no financial burden on mental health of Covid-19 hospitalized patients should be explored more in comparative studies where financial burden is involved for Covid-19 treatment.

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Is QEEG a Marker of Cognition in Depression? A Case Control Study Protocol

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ABSTRACT

Patients with depression demonstrate biased processing of cognition and many other complexities. The American Neuropsychiatric Association (ANA) recommends QEEG as an adjunct tool for not only classifying depression (unipolar and bipolar) clinically, but also appropriately differentiating between patients with depression and healthy individuals (Coburn et al., 2006). Hence, it becomes indispensable to explore brain network dynamics involved, thereby contributing to the knowledge about how this can be differentiated with the mechanisms involved in cognitive processing of healthy controls. This protocol of the study will include a total sample of 90 participants (45 each in case and control groups) which will be recruited prospectively and cross-sectionally. A series of paper pencil tests along with a 10-minute quantitative electroencephalogram (QEEG) would be conducted on participants giving written informed consent for the study. The QEEG data will be put into MATLAB software for further processing. The differentiating factors between the two groups will be further analyzed using the regression model for prediction. Carefully undertaken, the results and deduced interpretations from the present study will not only increase our knowledge pertaining to the localization of function with respect to QEEG of patients with depression compared to their age and sex matched healthy counterparts, but we will also be able to provide quantified details specific to different waveforms (alpha (8-13Hertz (Hz)), beta (13-30Hz), theta (4-8Hz), and delta (1-4Hz)) among the two study groups.

Keywords: *Quantitative Electroencephalogram (QEEG), Cognition, Depression, Brain Network Dynamics, Regression Model*

INTRODUCTION

In common practice, most psychiatric cognitive disorders are primarily diagnosed using clinical acumen, but Electroencephalogram (EEG) does play a considerable role in further evaluating, classifying, and understanding the prognosis of some of these disorders. EEG is now significantly considered for evaluating information from cortex and related neurophysiologic activities that occur during various states of consciousness (Kotchoubey et al., 2005). The American Academy of Neurology (AAN) defines Quantitative Electroencephalogram (QEEG) as "the mathematical processing of Digital Electroencephalogram (DEEG) capable of highlighting specific waveform components, to transform EEGs into a format or domain which may provide with relevant information for comparison or subsequent review" (Nuwer, 1997). QEEG can be a valuable tool with high test-retest reliability for a skillful neurophysiologist and it can also assist in exploring physiologic and pathologic correlates of disorders/conditions where consciousness may seem to be normal (Fumiharu et al., 2006) or impaired, quantifying frequency components of background activity (Jennett et al., 2001; Borthwick & Crossley, 2004), employing coherence analysis to comprehend neural network functional states (Davey et al., 2000).

Conventional EEG may show up to 20% to 40% abnormalities when it comes to mood disorders like depression. These changes may help in differentiating a normal/near normal EEG of patient with depression compared with a similarly impaired patient with severe EEG likely suggestive of functional or structural decline regardless of diagnosis. Hence, in times to come, QEEG may prove to be a useful tool for enhanced and better clinical diagnosis, assessment, and understanding the prognosis of depression (Kanda et al., 2009; Coutin-Churchman et al., 2003). In view of the utility of QEEG, the American Neuropsychiatric Association (ANA) recommends use of QEEG as an adjunct tool for classifying depression (unipolar and bipolar) clinically, appropriately differentiating between patients with depression and the healthy individuals, and for differentiating depression from other disorders with biased cognitive processing like dementia, schizophrenia, and alcohol dependence syndrome (Coburn et al., 2006). Epidemiology suggests that depression tends to occur across several age groups and does not seem to have a peak age of onset, therefore numerous studies have followed the nomenclature of aging as the criterion for researching various facets pertaining to depression (Ismail et al., 2013). Biased processing of cognition and dysregulation of emotions, often characterized by inhibited working memory, ruminating about negative life events, and decreased ability in regulating the associated negative mood states are evident among patients with depression (Gotlib & Joormann, 2010). Existing literature has suggested differences between early onset and late onset depression with respect to symptomatology, psychiatric characteristics, and psychosocial factors (Korten et al., 2012). Studies report that biased cognitions tend to make elderly patients more prone to recurrent depression (Biyik et al., 2015). With both, clinical and research driven evidence for biased cognitive processing in depression, it becomes imperative to explore brain network dynamics involved, thereby contributing to the knowledge about how this can be differentiated with the mechanisms involved in cognitive processing of controls (Gomez-Pilar et al., 2018).

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METHODS

Objectives: The review of the literature leads us to the primary objective of the study to explore (a) QEEG profile and (b) cognitive status among patients with Depression $_{30-70\ years}$, and Healthy controls (HC $_{30-70\ years}$). Another objective is to explore the association between QEEG profile and cognitive status.

Hypotheses: It is hypothesized that patients with Depression $_{30-70\ years}$ and HC $_{30-70\ years}$ will not differ in their QEEG profile and cognitive status ($H_0$1). To meet the other objective of this study, it is further hypothesized that there will be no association between QEEG profile and cognitive status between the two groups (Depression $_{30-70\ years}$ and HC $_{30-70\ years}$) ($H_0$2).

Study design and methods: This is a cross sectional case control study incorporating methods as per the STROBE guidelines retrieved from https://www.strobe-statement.org/fileadmin/Strobe/uploads/checklists/STROBE_checklist_v4_case-control.pdf

Setting: The data will be collected from both inpatient and outpatient departments of Geriatric Mental Health, Neurology and Psychiatry, KGMU UP, Lucknow. The control groups will be matched to their respective case groups for the demographic variables of age and sex. The control groups may also be included from the community if age and sex matched data seem difficult to recruit. The data from each participant will be collected during their one visit to the hospital.

Tools and Investigation: A Written Informed Consent Form will be employed as an ethical mandate of the study as per the Declaration of Helsinki. A Case Record Form will be used to document information pertaining to demographic and clinical variables. To assess cognitions, Addenbrooke's Cognitive Examination (ACE – III Hindi) (Bajpai et al., 2020) will be administered. ACE-H is a brief cognitive screening instrument used to measure cognition across a range of domains in dementia. It incorporates five domains, namely, orientation/attention, memory, verbal fluency, language, and visuo-spatial abilities. The cut off score for dementia is 82 – 88/100. Mini International Neuropsychiatric Interview (MINI) 7.0.2 (Sheehan, 2016) will be used for assessing the 17 most common disorders in mental health as per the DSM-5 criteria. The disorders investigated under MINI 7.0.2 are most important to identify in the clinical and research setting. General Health Questionnaire 12 items, Hindi version (GHQ 12) (Gautam et al., 1987) will be used to ascertain the risk of developing psychiatric disorders. The cut off for the questionnaire is 2. For assessing the severity of depression, the Hamilton Depression Rating Scale (HDRS/Ham-D) (Reynolds & Kobak, 1995) is the most widely used 17- item clinician administered depression assessment scale, designed to be completed after an unstructured clinical interview. Cut - off score for severe depression is 24. An investigation of QEEG for 10 minutes in awake state will be carried out in the Department of Neurology, KGMU UP for documenting dysregulation of cerebral rhythms and will be further quantified using MATLAB software. Table 1 depicts the operational definitions of the constructs as employed in the present study.

Table 1. Operational definition of the constructs

Constructs	Definition as used in the study
Brain mapping	Quantifications obtained by QEEG from 26 channels machine in reference montage over a duration of 10 minutes in awake state; MATLAB™ software will be used for analyses
Cognitive status	Scores obtained from five domains of ACE – III (Hindi) which are orientation/attention, memory, verbal fluency, language and visuo-spatial abilities
Depression	Depression $_{30-70\ years}$ individuals diagnosed with depression as first episode; exclusive of severe level, (s)he also meets the criteria for depression as per MINI 7.0.2, with a score ≥ 24 on HMSE, with a score ≤ 24 on Ham-D
Healthy controls (HC)	Individuals aged 30 years to 70 years, does not meet the criteria for any psychiatric disorder on MINI 7.0.2 and scores below the cut off on GHQ 12 (Hindi version)

Procedure: The screening of participants will be done on the basis of selection criteria. Those screened positive for recruitment in the study will be explained the purpose and methods of the study. A written informed consent for participating in the study will be sought from all participants. Thereafter, the tools (ACE-III (H), MINI 7.0.2, GHQ 12, Ham-D) will be administered and a 10 minutes QEEG investigation will be conducted. The data thus obtained will be analyzed computing both descriptive and inferential statistics.

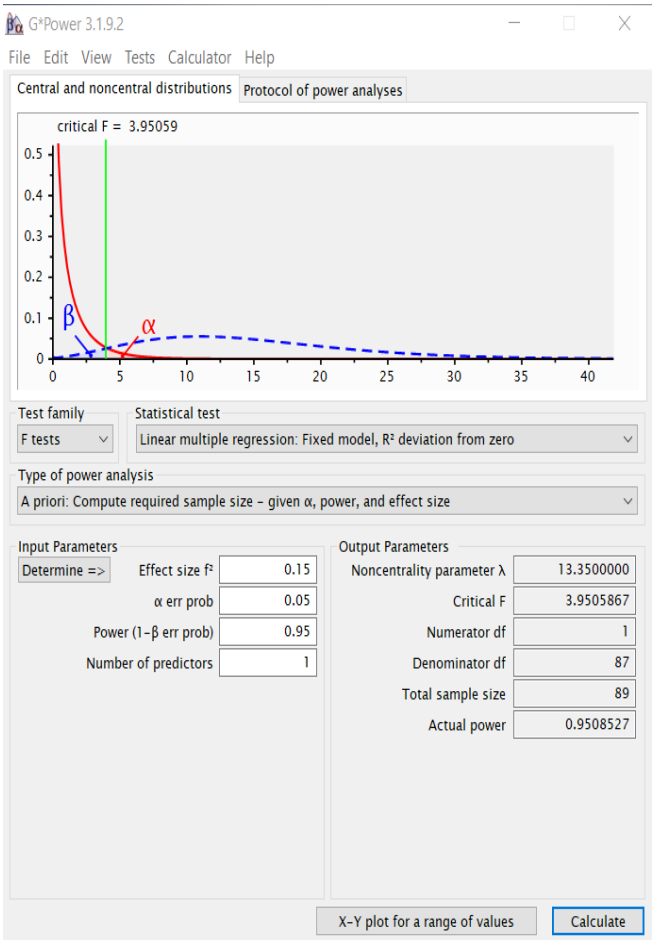
Selection criteria: For participants with depression (case group), the sample will be inclusive of participants providing written informed consent for participating, aged 30 years to 70 years, diagnosed with depression in the current episode, with a score ≥ 24 on HMSE and meeting the criteria for depression on MINI 7.0.2, not taking any psychotropic medication for at least 3 months in the current episode since that may impact the QEEG recordings. For Healthy controls (HC), those participants providing written informed consent for participating will be matched for age (± 2 years) and gender, those not meeting the criteria for any psychiatric disorder on MINI 7.0.2, and scores below the cut off on GHQ 12 (Hindi version) and not taking any psychotropic medication for at least 3 months.

Participants having any major illnesses, namely, parkinsonism, cerebrovascular events, dementia, organic disorders, schizophrenia, mood disorders and neurotic disorders, epilepsy, diabetes, significant head trauma, demyelinating disorders, hypothyroidism,

hypoparathyroidism, Cushing's disease and malignancies which may impede with conducting the interview/assessment will be excluded from study.

Sample size for primary outcomes: Sample size was computed using G power statistical software (Faul et al., 2007) for regression analysis for case control study design (Figure 1). The value obtained for the total sample size came out to be 89 subjects with a sample of 45 in each case and the control group, respectively (total 90 subjects), will be recruited.

Fig. 1: Sample size was computed using G power statistical software



Data Management and Analysis: Descriptive statistics for frequency, percentage will be computed and inferential statistics for measures of central tendency and regression model will also be carried out using SPSS version 21.0. For fulfilling the objectives, the two groups will be compared for all waveforms like alpha, beta, theta, and gamma using regression analysis computations. Graphs and tables will also be provided wherever deemed necessary.

Ethical clearances: The study protocol is approved for conduction by the Institutional Ethics Committee (IEC), KGMU UP, Lucknow with reference code 94th ECM II B-PhD/P2. The ethical considerations will be promptly undertaken while conducting the present study. An information sheet covering the purpose and method of the present study will be provided to the participants. A written informed consent will be obtained from all the participants before recruiting them in the study. It will be explained that they have a right to withdraw their participation at any point of time and that no direct benefit in cash or kind would be given to them for participating in the study, although the study might be beneficial to the field/fraternity in future. The issue of treating all obtained data with confidentially will also be discussed with the participants.

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Delay in Publication of IJCP: Why?

Marked delay in publication and distribution of IJCP is deeply regretted. We had some relief in the month of December, 2020 & January, 2021. But second wave of Pandemic in the month of February this year again created havoc and disrupted the schedule of publication of IJCP. Frequent lock downs, opening of market, service and business centre/agencies with corona guidelines on odd and even basis during the whole week or depending the number allotted by state to shops and business centres/agencies (with compulsory closure for two days on weekends, i.e., Saturdays & Sundays). Further this has also resulted in marked increase in price of paper, colour and printing cost.

Please bear with us; as the whole editorial team is putting best efforts in bringing out IJCP issues and catch up the schedule in this difficult time. Editors earnestly request to all the members, potential, prospective authors especially young researchers/ upcoming psychologists/clinical psychologist; who have submitted manuscripts for publication; not to be impatient. Your aggressive questions reaching us through phone calls … delay…. delay …delay …. how long; further delays our functioning.

All Ph.D. scholars aspiring to publish your work in IJCP, must have a first look at our website iacp.in before clarifying any further detail/s from Editor on Phone.

Thanks, Editor.

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Original Research Article

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Validation of Scribbling and Prewriting Skills Inventory for Toddlers and Preschool Children

S. Venkatesan*

ABSTRACT

Although scribbling and prewriting are essential emergent skills in toddlers and preschool-aged children, current practices in early childhood education have ignored their importance. Instead, the emphasis only on the three Rs has resulted in disastrous consequences. This study attempts a cross-sectional observation survey on 51 children, including 28 boys and 23 girls in the chronological age between 18-36 months. The sample included typical as well as children with developmental delays and disabilities. For this study, the "*Demographic Data Schedule*" elicited information on child, parent, and school. Another "*Scribbling and Prewriting Skills Inventory*" comprising of 30 behaviourally worded statements was prepared from available literature and based on the clinical expertise of the investigator. The test items were arranged in increasing order of difficulty levels. Their scoring was undertaken on an all-or-none basis by allocating one mark for items passed and no mark for failed items. The maximum possible score on this inventory is 30. The 2-week test-retest reliability coefficient measured to be 0.89. The results of the study indicate that it is possible to construct a hierarchical and behaviourally based tool to assess scribbling and prewriting skills in toddlers and preschool-aged children. The tool holds promise for planning scribbling teaching programs for the optimum benefit of these children.

Keywords: *Emergent skills, graphomotor, pre-academics*

INTRODUCTION

Scribbling is not a senseless activity as it seems to be. It cannot be treated as insignificant and transitional. Scribbling hides an untold story behind its meaningless strokes. Toddlers evince interest in writing instruments around 15-18 months. They initially acquire and hoard pens, pencils, paper, erasers, or stationery materials. They might not end up using them. This acquisitiveness, especially, when there is another peer around, may appear quite solemn. It seems as though the child is going to do many things with the writing paraphernalia. It is not. It all ends just with that!

After a period of continued exposure, toddlers first begin to put into use their hoarded writing materials. They begin by banging them against paper, board, nooks, sidewalks, or on the walls to produce dots. By then, they are ready to move into the scribbling stage. The scratches, squiggles, scrawls, scrolls, or strokes which they make have not been a subject of serious scientific study. Poor handwriting or doodling by adults is mistaken as scribbling. Doodles are drawings made while a person's attention is otherwise occupied. Even dictionaries define scribbling as a gerund to denote the action of "writing hastily or carelessly, to fill or cover with careless or worthless writing or to make meaningless marks" (Merriem-Webster, 1999).

The field of child psychology recognizes scribbling as the first stage of drawing. A child's pre-schematic marking is designated as scribbling. The outwardly meaningless marks, lines, dots, or jabs with a writing instrument on surfaces are a graphomotor activity that is an early emergent literacy skill (Akita et al. 2007). They are the building blocks for formal reading and writing. Like babbling is needed for vowel production in early oral language, scribbling is required for later drawing or copying alphabet, word, sentence, paragraph, and passage.

Fine motor skills, particularly those related to the hands, wrist, palm, and fingers, are integral for all writing, including the scribble. Eye-hand coordination, finger dissociation or ability to move fingers individually, or stop-start at will, the establishment of hand dominance, adequate finger strength or muscle tone, pencil grasp, prehension, or hold (palm-tripod-cylindrical-spherical-hook-opponent-pincer or lateral grasp) are all needed for mastery of prewriting skills. The term 'graphomotor skills' refers to a combination of cognitive, perceptual, and motor skills that enable a person to write. Symptoms of graphomotor deficits are sloppy or illegible handwriting, slow or laboured writing, awkward pencil grip, the poor spacing between letters or words, cramping or pain in hand when writing, avoidance of writing tasks, and tiredness for writing activities. Such difficulties are reflected as illegible handwriting or other writing problems in children (Berninger et al., 2008).

All emergent literacy skills, in general, pre-academics in particular, as well as scribbling, are assumed to develop in discernible sequences or pathways. Scribbling first appears between 18 to 36 months. Different names and stages have been given to early childhood scribbling. Note that scribbles are different from drawings. Most authors agree that scribbling is the first developmental stage of drawing. There is no universally agreed-upon nomenclature, stages, or taxonomy of scribbling in young children (Box #1; Naimi, 2006).

There are many unanswered questions about scribbling in toddlers. Do dots appear first or dashes? Do wavy lines come before or after spirals? Are there gender differences in scribbles of toddlers? Is scribbling also seen in children with disabilities? If so, are their developmental trajectories identical to typical children? Would there be a developmental delay or slower speed in their development

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Box # 1
Nomenclature, taxonomy, stages or types of scribbling & prewriting

- Three sub-stages: disordered-random scribbling, controlled scribbling, and planned scribbling.

(Lowenfield and Brittain, 1964)

- Five periods in the development of children's drawings:

  - scribbling (2-4 years);
  - pre-symbolism (4-7 years);
  - symbolism (7-9 years);
  - realism (9-12 years); and,
  - apparent naturalism (12-14 years)

(Samurcay, 1975)

- Four stages of scribbling with the progression of strokes as follows: |, —, O, +, /, square, \, X, and Δ

  - random scribbling (15–30 months);
  - controlled scribbling (2-3 years);
  - ;ines and patterns (2 ½ - 3 ½ years); and,
  - pictures of objects or people and letter to word (3-5 years).

(Diffily, 2001)

- Three stages of drawing

  - Basic stage of dots, dashes, and spirals between 1-2 years;
  - Random scribbling appears by 2-3 years;
  - Diagram stage of primary geometric shapes like standing, lying, curved and crooked lines, circle, square and triangle by three years or more

(Flannery, 1978)

- Stages of scribbling characterized by four distinct behaviors like manipulation, uncontrolled marking, controlled marking, planned or named marking:

  - Marking (10-12 months);
  - Dots (13-14 months);
  - Random marks (15 months);
  - Random circles (16 months);
  - Controlled marks (17 months);
  - Controlled strokes (18 months);
  - Geometric shapes (24 months); and,
  - Simple figures (32 months).

(Dunst & Gorman, 2009).

- The *aesthetic-dynamic perspective* identifies five phases of scribbling, based on the different representative intention of the child.

  - Stage 1: Child shows interest to imitate the act and not the product;
  - Stage 2: Interest turns toward the product. Horizontal and wave-like patterns seen;
  - Stage 3: Expressive scribble, where the line mirrors the emotional state or attitude of the child at the moment of scribble production. It may be an angry child, for instance, who produces chopped, broken lines, often intersecting one over the other that s/he even defines as "bad." A quiet, happy child produces round, curved lines which s/he defines as "good."
  - Stage 4: Symbolic phase, when the child transmits, through the sign, the nature of their relationship with the object represented.
  - Stag 5: Onomatopoeic scribble, when the child gets interested in dynamic and sound characteristics. After this stage, they abandon scribbling and embrace drawing called topographic drawing

(Prino & Sclavo, 2011; Yang & Noel, 2006; Yamagata, 1991).

of scribbling? Do they have an inbuilt deficit or follow an entirely different route of scribble development? The available research on scribbling in young children is not pure observation-based studies. Many of them are contaminated by the use of visual or verbal prompts, guidance, modelling, or their collaborative drawing with adults. The length of any single data collection episode ranges from 30 seconds to 20 minutes, or from one to multiple trials. The drawing surfaces used in the studies are slanted or flat, and writing instruments vary between pencils, marker pens, and crayons. One still does not know what functions do scribbling serve? Do they represent some as a kind of graphical monologue (Longobardi, Quaglia & Lotti, 2015)? Many scribbling parameters like length, surface, pen-up duration, minimum pressure, maximum pressure, time, the role of incentives, and motivation factors have not yet been systematically studied. A report is available on using computer enabled Sigma-lognormal modelling to study scribbling in children (Hayes, 1990).

While the developmental trajectory of scribbling in typically developing children is itself poorly understood, studies on children with developmental delays and disabilities are almost next to absent in the literature. Their apparent difficulties in performing activities requiring fine motor speed, strength, and hand-eye coordination may exclude them from even receiving the opportunity for attempting a scribble. Even if such chances are given for experiment or exploration, it may be cursory or inconsistent. There may be fears or apprehensions in caregivers that the child might mouth or injure oneself with the writing instrument.

Theoretical Background

Existing theories on scribbling highlight its value as the basis for the development of mental representation, imagination, and cognition, especially visual attention and perception in children (Coates & Coates, 2015; Yamagata, 1997). As emergent writing skills, its progression to writing is viewed as sequential. Early scribbling is not random. According to the ***linearity or differentiation hypothesis*** (Tolchinsky, 2003), early scribbles have some characteristic features like linearity or straight lines, discreteness or segmentation, and writing units with separated spaces, lack of iconicity. By contrast, the ***unified hypothesis*** argues that there is no linear sequence (Puranik & Lonigan, 2011). The role of culture and environmental stimulation is critical for the development of scribbling in children (Pinto, Gamannossi & Cameron, 2011). Others have postulated the possibility of gender differences in the scribbles of toddlers (Berefelt, 1987). The phylogenetic theory of scribbling views it as a carryover of ancient human art or as an abstract mathematical representation of brain activity (Sheridan, 2002). The present study is based on the dynamic developmental theory of scribbling in preschool-aged children embedded in stages and backed by a holistic bio-psycho-social model that accommodates heredity, maturation, and growth factors for explanation. Further, the phenomenon of toddler-age scribbling, as a rudimentary graphomotor skill, which is a part of the broader framework of emergent literacy skills, is also accounted for by a delay versus deficit hypothesis.

AIMS & OBJECTIVES

It was the generic aim of this study to investigate patterns of scribbling and pre-writing (SPW) in toddlers and preschool-aged children with and without developmental delays or disabilities (DDDs). More specifically, its objectives are:

- To identify, compile, and prepare a provisional taxonomy of different types of scribbling and pre-writing in toddlers and preschool-aged children with and without developmental delays or disabilities;
- To develop a tool for the measurement of scribbling and prewriting skills in a group of children with and without developmental delays or disabilities;
- To administer the prepared tool on a representative sample of children with and without developmental delays or disabilities;
- To determine the overall nature, extent, types, or trends for scribbling and prewriting concerning gender in a group of children with and without developmental delays or disabilities; and,
- To deduce norms as well as establish internal/external validity and reliability of the developed scribbling and prewriting tool for children with and without developmental delays or disabilities.

This exploratory cross-sectional study uses a normative approach by incorporating a two-group comparative research design. It has an inbuilt ingredient of tool development and validation exercise by blending observation as well as interpretation of hand-scribbled protocols of children with and without DDDs.

Operational Definitions

The key phrases used in this study are scribbling, toddlers, and preschool children, as well as children with and without DDDs.

Scribbling, the outcome variable in this study is any or all products in the form of markings on an A4 size paper made by the recruited sample of children following their placement without any explicit instructions for a maximum period of ten minutes along with sufficient writing materials like sketch pens of different colours.

The term '*Developmental Delays and Disabilities*' (DDDs) are conditions usually present at birth or little after that, but within the so-called 'developmental period' (or 18 years) and manifest as a definite lower-than-age slowness and difficulties in areas, such as sensory-motor, social-adaptive behaviour, and speech-language. It also includes children 'at risk' or those having a strong predisposition towards developing one or the other disability in due course of time

The term '*toddlers and preschool children'* refers to children above the chronological age of 18 months but below 36 months for typical children (TC) and below 36 months developmental age for children with DDDs.

METHOD

Sample

The study was undertaken on a purposive clinical and non-clinical sample by recruiting 51 children, including 28 boys and 23 girls in the chronological age range between 18-36 months from cases attending the services in the investigating agency and from homes, kindergarten, play centres, and nursery schools. The sample included 14 same-aged children with DDDs, albeit with lowered mental ages.

Tools

A 30-item tool titled "Scribbling & Prewriting Skills Inventory" (SPSI) was prepared by including related tasks or activity statements applicable for toddlers and preschool-aged children in the targeted age range. Caution was exercised not to mistakenly include early childhood activities involving fine motor skills, hand-eye coordination, digital steadiness, speed and dexterity, graphomotor competencies, and the alphabet or word writing as scribbling. The final list was drawn from a range of normative developmental schedules such as Activity Checklist for Preschool Children with Developmental Disabilities (ACPC-DD; Venkatesan, 2004), Gesell's Developmental Schedule (GDS; Muralidharan, Bevill & Seth, 1986)**,** Gesell's Drawing Test, Preliminary Domain (GDT; Venkatesan, 2002), Manual on Mental and Motor Growth of Indian Babies (Phatak & Khurana, 1991), Infant Intelligence Development Scale (Kulshrestha, 1977), Developmental Screening Test (Bharatraj, 1977), Portage Guide to Early Childhood Education (Venkatesan, 2010; Rao, 2002; Kohli, 1987), NIMH Development Assessment Schedule (Arya, 1991), and others. The SPSI is given in Table 1.

Procedure

Each child underwent a detailed examination of the SPSI along with the evaluation of their current levels of developmental age/quotients on norm-based tools like ACPC-DD, GDS, and on the Preliminary Domain of GDT. Data collection was undertaken by Post Graduate students majoring in psychology. Each participant used an A4 size blank white paper along with sufficient writing materials like colourful crayons, pencils, and pens, from which the child was free to choose as per their preference. The seating arrangement for the child was low-height table and chair or the floor as per their comfort to undertake the scribbling activity. A non-threatening and reassuring milieu was maintained. No prompts or specific instructions were given. Pre-testing preparations typically covered rapport building, orienting the child on what is in store during observation sessions. Rapport was established. Time breaks were allowed. Simple and positively stated instructions like were preferred to direct commands like 'Sit Down!' Small courtesies and praise statements were profusely used, such as, 'Good Work!', 'Great Attempt!', 'Thank you!' Records on children were frequently perused to code and describe them. The analysis was carried on SPSS/PC (Pallant, 2013). The period of study ranged between July-December 2019. Informed consent following sensitization of the parents on the nature, scope, and objectives of the study was taken as mandated by the ethical guidelines in the investigating agency (Venkatesan, 2009).

RESULTS

For convenience of reporting, the results of this study are arranged sequentially as: (a) Identification and compilation of scribbling and prewriting skills; (b) Comparative norms, developmental age equivalents, and standard scores; (c) Item analysis; and, (d) Reliability and validity.

(a) Identification and compilation of scribbling and prewriting skills:

A comprehensive review of available online and offline literature on scribbling and PWS in toddlers and preschool-age children, including blogs, the World Wide Web, textbooks, research articles, and newsletters, were undertaken. Additionally, the individual scribble protocols available with the investigator were perused. A frequency count of the nature or content of the scribbles were listed. A total of thirty statements were derived, which was placed in the hierarchical order of their age and frequency. As shown, many items were drawn from existing or available developmental schedules, while a few others were taken from the author-clinician diary notes and experience (Table 1).

(b) Comparative norms and developmental age equivalents:

With the 30-item SPSI in place, the scribble protocols of each participant were named and codified as either pass or fail for their measured developmental age. For example, if a child of 24 months chronological age showed "tripod-hold on writing instrument" (Item#15), a tally was given for the item in that age. Further, if another child of 36 months could also show the same hold, another tally was added to that item. On the other hand, if a child at 24 months did not show tripod-hold, no tally is given. Tables 1 & 2 give frequency counts on various levels of scribbling and PWS for the overall sample as well as against gender, condition, and developmental age equivalents for each item.

For the overall sample (N: 51), results show a gradually increasing age gradient of frequency counts with all children passing the first four items followed by lower counts with increasing age (X^2: 64.9; df: 14; p: <0.001). For the gender variable, the 2-tailed Mann-Whitney U Test was undertaken to derive the z-score of 1.87023 with p-value of 0.061. The result is not significant at $p<.05$. This implies that gender does not emerge as a significant variable for the age-related developmental changes that take place in scribbling and PWS of children. Next, about the variable, if the child's condition, the 2-tailed Mann-Whitney U Test measures the z-score value of -6.2686 with p-value of 0.0001. The result is significant at $p<.001$. This implies that children with DDDs perform significantly lower than typical children.

(iii) Item analysis

Item analysis was undertaken for the SPSI to how the scribbling and PWS vary with increasing developmental age. Items 1-7 involving "shows interest in stationary and writing instruments," "hoards stationery and writing instruments," "indiscriminately jabs writing instruments on paper," or "scribbles spontaneously" are some basic skills visible in this sample of children by 18 months. On the other hand, activities like drawing a rudimentary circle or spirals

Table 1: Description of items on Scribbling & Prewriting Skills Inventory (SPSI) with the expected age of performance

S.no.	Item	Source	Norms in months
1	Shows interest in stationery and writing instruments	NEW	18
2	Hoards stationery and writing instruments	NEW	18
3	Indiscriminately jabs/bangs writing instruments on surfaces	NEW	18
4	Scribbles spontaneously	DST	18
5	Cubes: Build a tower of two	GDS	18
6	Marks with a pencil, crayon or chalk	VSMS	18
7	Palm hold on writing instrument	ACPC	18
8	Clear imitation stroke	GDS	21
9	Dot making	NEW	21
10	Dot making turns into dashes	NEW	21
11	Cubes: Build a tower of four-five	GDS	21
12	Makes one fold on imitation	NEW	21
13	Dashes take forms of vertical, horizontal, or crisscrosses	NEW	24
14	Stand up, lying down, curved and crooked lines	NEW	24
15	Tripod hold on writing instrument	ACPC	24
16	Cubes: Build a tower of six-seven	GDS	24
17	Unwraps candies	VSMS	24
18	Imitative vertical and a circular stroke	GDS	24
19	Inserts five coins into a container in 30 seconds	ACPC	27
20	Draws rudimentary circles/spirals clockwise or anti-clockwise	ACPC	30-33
21	Scribbles reflect moods like anger, placid, quiet, happy, etc.	ACPC	30-33
22	Imitates an adult scribbling	NEW	30-33
23	Holds crayon by fingers	GDS	30-33
24	Inserts 10 pellets into a bottle in 30 seconds	GDS	30-33
25	Cubes: Build a tower of eight	GDS	30-33
26	Makes two or more strokes	GDS	30-33
27	Copies circle	DST	30-33
28	Does paper folding	VSMS	30-33
29	Imitates a cross	GDS	30-33
30	Names own drawing or parts of incomplete man	GDS	36

[KEY: ACPC-Activity Checklist for Preschool Children with Developmental Disabilities; GDT-Gesell's Developmental Schedule; VSMS-Vineland Social Maturity Scale; NEW: Author generated items]

Table 2: Overall frequency counts on scribbling & prewriting skills (SPSI) as well as concerning demographic variables

Item No.↓	Overall	Gender		MA in months							Condition	
		Boys	Girls	18	21	24	27	30	33	36	DDDs	TC
N→	51	28	23	7	8	6	9	6	8	7	14	37
1	51	28	23	7	8	6	9	6	8	7	14	37
2	51	28	23	7	8	6	9	6	8	7	14	37
3	51	28	23	7	8	6	9	6	8	7	14	37
4	51	28	23	7	8	6	9	6	8	7	14	37
5	50	27	23	6	8	6	9	6	8	7	13	37
6	49	27	22	5	8	6	9	6	8	7	12	37
7	49	27	22	5	8	6	9	6	8	7	12	37
8	45	25	20	1	8	6	9	6	8	7	12	33
9	43	24	19	0	8	5	9	6	8	7	11	32
10	39	21	18	0	6	4	8	6	8	7	7	32
11	38	21	17	0	6	4	7	6	8	7	6	32
12	38	21	17	0	6	4	7	6	8	7	6	32
13	33	19	14	0	1	4	7	6	8	7	6	27
14	32	18	14	0	0	4	7	6	8	7	6	26
15	31	18	13	0	0	4	7	5	8	7	5	26
16	30	17	13	0	0	4	7	4	8	7	4	26
17	31	17	14	0	0	4	7	5	8	7	5	26
18	31	17	14	0	0	4	7	5	8	7	5	26
19	27	15	12	0	0	0	7	5	8	7	5	22
20	20	11	9	0	0	0	0	5	8	7	5	15
21	20	11	9	0	0	0	0	5	8	7	5	15
22	19	11	8	0	0	0	0	4	8	7	4	15
23	16	10	6	0	0	0	0	4	7	5	1	15
24	18	10	8	0	0	0	0	5	6	7	3	15
25	15	9	6	0	0	0	0	4	6	5	0	15
26	16	9	7	0	0	0	0	5	6	5	1	15
27	13	7	6	0	0	0	0	4	6	3	0	13
28	14	8	6	0	0	0	0	4	6	4	0	14
29	14	9	5	0	0	0	0	4	6	4	0	14
30	5	3	2	0	0	0	0	0	0	5	0	5
	940	524	416	45	91	89	152	152	219	192	190	750

[Items 1-7: 18 months; 1-12: 21 months; 1-18: 24 months; 1-19: 27 months; 1-29: 30 & 33 months; 1-30: 36 months]

either clockwise or anti-clockwise, emotion-backed scribbles, imitation of adult scribbles, or other rudimentary geometric forms appear only later towards 36 months. It is noted that children with DDDs consistently show a lowered performance on scribbling and PWS compared to their age-matched typical children.

Movements from dot banging towards uncontrolled and unintentional linear marks happen accidentally by large movements of the whole arm. 18-month olds grasped the writing tool with the whole palm. This is what is called the beginning or rudimentary palm-grasp. Their whole body was noticed to make unnecessary movements to produce the imprints. Their strokes were haphazard. The child did not even look at the scribble while attempting one. Their gaze is initially bound to be elsewhere. The impressions sometimes even went beyond the boundaries of the paper. More than half of these children were unable to go beyond the first ten items of the 30-item scale.

(iv) Reliability & Validity

The 2-week test-retest reliability check for SPSI undertaken on a random sub-sample (N: 10) showed a correlation coefficient of 0.89. The face validity of the tool was high for clarity of wording, style and layout. The tool is easily understood as evidenced by a feedback received from teachers and special educators dealing with children.

DISCUSSION

Empirical studies on scribbling in toddlers and preschool aged children are relatively scarce across the world. A child's scribble is often dubbed as ephemeral, insignificant and not worthy of a scientific investigation. Wherever they have been studied, scribbling is seen only as an early dispensable stage to later drawing or writing skills in young children. By doing so, the merit of scribbling in the psychological life space of children is lost for science. Against this background, this study seeks to inquire about scribbling in 1 ½ to 3 year-olds as an independent needed activity than only a prerequisite to prewriting in children (Maclagan, 2013). The results of this study show discernible progressive stages in the scribbles of both typical and developmentally delayed toddlers. There are significant qualitative and quantitative differences by developmental age. The typically developing and older children show better form and content of their scribbles than their affected and unaffected younger peers. Empirical data shows that the developmentally laggard children are slow rather than different from their faster peers. This means that they may catch up sooner or later, even though sluggishly. This brings to attention the ancient polarity of delay vs. deficit hypothesis of children with special needs that needs further investigation (Hunt & Ellis, 1999).

Children begin scribbling as motor movements to culminate as drawing or a symbolic representational activity. They move ahead later into meaningful alphabet, word, phrase, or sentence writing by their first grade (Heald-Taylor, 1984; Gardner, 1980). It has often asked both what and why children scribble (Kellog, 1955). The initial motor movements in scribbling by one-and-half year turn into playful or sportive activity by two. Much later, it becomes a means of emotive expression. Drawing gets distinguished from scribbling when it seeks to represent something. This happens only by 4-6 years after the stage of scribbling. An element of internal imagination comes into play in drawing. Scribble is a mere imitation of parents or others and carries the pleasure of doing so.

This study reiterates that toddlers and pre-schoolers are entitled and need to be encouraged or empowered to scribble (Kiendl, Hooyenga & Trenn, 1997; Baker & Kellogg, 1967). During the transition between stages of scribbling, the child needs support for painting by using thread, feather, blocks, vegetable, cotton-swab, or sponge, finger, palm or paper tracing, colouring, writing in air, wall, or sand. When controlled scribbling appears with directional strokes by 2-4 years, the circles assume clockwise or anticlockwise directions. There is a conscious effort to draw and a higher degree of muscle control on the writing activity. Surface textures are understood as rough or smooth. There is a preference for the use of different colours. Wrist movements take precedence over the full arm and total body movements. Figure-ground relations are now understood. The child begins to assign meanings and invent stories. However, this is all beyond the stage of scribbling.

In sum, there are several day-day strategies that caregivers can use to get preschool children to enjoy writing. It is worthwhile to maintain a portfolio of the visual record of the child's scribbling and progress in their writing work. This can be done by spending more quality time with the child, filling the interactions with them with stories, allowing them to observe adults writing, involve them in games requiring writing, encourage by displaying their write-ups, expose them to a variety of writing surfaces or tools, giving them their own writing space, and make them a part of writing project.

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Neuro-cognitive-behavioural Deficits in Male Schizophrenia Patients

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ABSTRACT

Schizophrenia is a disorder having problems in perception, thought, reality testing and significant socio-occupational dysfunction. It is a chronic disorder, and due to the severity of symptoms, often patients with schizophrenia becomes disabled, and many of them need assistance and supervision to manage the most basic functions of independent living. These deficits limit the patient's personal, social, and occupational functioning and significantly affect cognitive functioning. Assessment of these deficits is vital for management planning. The present study aims to assess the neuro-cognitive-behavioural deficits experienced by patients with schizophrenia. The scales used in the present study are General Health Questionnaire-12 (GHQ-12), Positive and Negative Syndrome Scale (PANSS), Cognitive Symptoms Checklist (CSC), and Arnadottir OT-ADL Neurobehavioral Evaluation (A-ONE) Part I. Results suggested that patients with schizophrenia have significant deficits in attention, memory, vision, language, executive function, motor ability, visuo-motor coordination, and daily living activities in comparison to normal control. Patients with schizophrenia have poor executive functions and poor activities of daily living in dressing, grooming and hygiene, transfer and mobility, feeding and communication.

Keywords: *Schizophrenia, Neuro-cognitive-behavioural deficits, Cognitive symptoms checklist, Arnadottir OT-ADL Neurobehavioural evaluation*

INTRODUCTION

Patients with schizophrenia have marked impairments and deficits in behavioural functioning, community life skills, understanding interpersonal relationships, lack of independent living, self-care, social skills, and vocational skills. Cognitive deficits may be in the area of neuro-cognition and social cognition. Neuro-cognition is a person's capacity to obtain information and remember. It includes processing speed, memory, auditory and visual perception abilities, reasoning, verbal fluency and problem-solving. Social cognition comprises of mental operations needed to understand and interpret one's own self and other human beings in the society. Patients have difficulty in facial emotion perception. These deficits limit the patient's personal, social and occupational functioning and have significant effect on cognitive functioning as well. Hence, rehabilitation, including cognitive, social and vocational aspects, is an integral part of management. Assessment of these deficits is vital for management planning.

Studies suggested that patients with schizophrenia have gross impairment in the cognitive domain, executive function, and daily living activities. Heaton et al. (2001) reported that patients with schizophrenia tends to show poor performance on all cognitive tests assessing memory, attention and executive function. Shrinivasan et al. (2005) compared hundred schizophrenia patients who were on antipsychotic medication at the time of evaluation with hundred matched normal controls on multiple measures of attention, executive function and memory. They found that performance in schizophrenia patients was deficient in all domains of cognition. Das et al. (2005) have also reported similar findings. Mukheriee et al. (2011) found that schizophrenia patients had cognitive deficits in attention, memory and executive functioning. Research reports deficits in working attention, memory, visual and verbal learning, processing speed, with a substantial deficit in higher order cognitive functions of abstract thinking, planning, reasoning and problem-solving in patients with schizophrenia.

Research suggests that schizophrenia patients who have memory impairment experience significantly more positive symptoms and inferior quality of life in comparison with those who do not have memory impairment. This finding indicates that neurocognitive measures provide a valuable way of organizing the heterogeneous disease states of schizophrenia (Vaz & Heinrichs, 2002). Moritz et al. (2017) found that schizophrenia patients had significantly poorer performance than control participants on neurocognitive functions related to speed, attention, memory, reasoning, spatial performance and executive functioning (large effect size, on average). They also found that patients also had more subjective impairment, significant concern about the outcome, and poor motivation than the control group participants. Mediation analyses indicated that these factors contributed to deficits in secondary neurocognitive performance. Silberstein et al. (2018) found that patients' performance on social cognitive tests did not correlate reports of their social cognitive abilities in three out of four domains of functional outcomes. The variation in social cognition as reported by the patient and the informant, predicted impairment in day to day functioning in all four functional domains. This difference in scores was also found to exert a stronger influence on level of disability of the patient when other influences of negative symptoms, social competence and social cognitive performance were controlled.

Chattopadhyay et al. (2020) in their research found that the neurocognitive functions in the patients with schizophrenia as well as their first-degree relatives are significantly impaired in comparison to control participants. The impairment that was prominently reported inpatient with

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schizophrenia was decreased speed of processing, whereas it was in the working memory among unaffected first-degree relatives. Raveendranathan et al. (2020) reported that insight has a strong relationship with executive functioning in schizophrenia. This indicates shared neurobiological substrates for insight and executive functioning. Kolavarambath et al. (2020) compared emotion recognition of patients having schizophrenia with normal controls. They found that patients had more significant deficits in emotion recognition. Further metacognition and emotion recognition did not show any significant relationship. The presence of negative symptoms was significantly correlated with social functioning in persons with schizophrenia.

Overall, literature review suggests cognitive impairment in schizophrenia patients; however, most studies have focused on cognitive domains. Neuro-behavioural deficits are less studied in schizophrenia. Hence, the present study aimed to assess deficits in the neuro-cognitive and behavioural functioning of patients with schizophrenia.

METHODS

Sample:

Thirty patients diagnosed to have schizophrenia according to the ICD-10 DCR criteria (F 20) were selected as participants of the experimental group from the in-patient unit of Ranchi Institute of Neuropsychiatry and Allied Sciences, Kanke, Ranchi. Thirty normal individuals fulfilling the inclusion and exclusion criteria with matched socio-demographic variables to the experimental group participants were selected as normal control groups from the local community. The sample was selected using the purposive sampling technique.

All participants were male. The mean age of the patient participants were 35.50 ± 9.662 years, and the normal control group was 33.23 ± 7.161 years. Majority of them were educated up to the secondary level and were involved in occupational activities. The range of duration of illness was from 1year to 5 years. To control the effect of symptoms, patients who were rated to have severe symptoms on Positive and Negative Syndrome Scale (PANSS) were excluded. Participants were on treatment as usual that includes pharmacotherapy and psychosocial intervention as required. Participants of the normal control group were screened using GHQ-12 for probable psychiatric morbidity.

To control the effect of confounding variables, patients having a history of mental retardation, significant head injury, epilepsy or gross neurological deficits, history of harmful use of any substance (other than nicotine), any co-morbid severe medical conditions, having ECT within the past six months and vision or hearing impairment were excluded.

There was no significant variation in the patient and normal control group regarding age, education, occupation and socio-economic status.

MEASURES

Socio-demographic and Clinical Data Sheet

Socio-demographic and clinical data sheet was prepared by the researchers to record socio-demographic details and to screen the sample.

General Health Questionnaire -12 (Goldberg & Williams, 1988)

The twelve-item version of General Health Questionnaire was used to screen psychiatric morbidity in the participants, and it consists of twelve items.

Positive and Negative Syndrome Scale (PANSS) (Kay et al., 1987)

It is a clinician rated scale used to for assessing symptoms of Schizophrenia. The scale consists of 30-items which evaluates positive, negative and other general symptoms on a seven-point scale. The rating is done through clinical interview and reviewing other sources of information.

Cognitive Symptoms Checklist (CSC) (O'Hara et al., 1991)

Cognitive Symptoms Checklist is a tool for assessing neurocognitive deficits by Christiane O'Hara et al. in 1991. The areas are attention/concentration, language, memory, executive functions, and visual processes. This tool has been used in Indian studies (Jahan et al., 2010; Kanchan et al., 2018)).

Arnadottir OT-ADL Neurobehavioral Evaluation (A-ONE) Part-I (Arnadottir, 1990)

The A-ONE has two parts. Part I primarily addresses functional skill performance and detect specific components of neuro-behavioural dysfunction. It includes primary activities of daily living domains of dressing, grooming and hygiene, transfer behaviour and mobility, feeding and communication. Content validity is established based on expert opinion. The inter-rater reliability of the test is .84.

Procedure of study:

Patient with schizophrenia admitted in in-patient units were screened on the basis of inclusion and exclusion criteria. After screening 43 patients with schizophrenia, thirty were selected for the experimental group, and thirty normal control group participants were selected from a nearby community. Informed consent was taken. Socio-demographic and clinical details were recorded. Tools decided for the study were administered.

Statistical analysis:

The test profiles obtained were scored, and data was tabulated. Group comparison was done using the student 't' test.

RESULTS

The present study aimed to assess deficits in the neuro-cognitive and behavioural functioning of patients suffering from schizophrenia. Cognitive Symptoms Checklist was

used to assess cognitive domains, namely, attention, memory, vision, language and executive functions. Arnadottir OT-ADL Neurobehavioral Evaluation (A-ONE) Part-I was used to assess activities of daily living.

Findings of the Cognitive Symptoms Checklist are given in Table 1 to Table 5.

Table 1 shows a statistically significant difference (p<.01) between both groups in all assessed areas of attention, suggesting poorer attention in schizophrenia patients in comparison to normal controls in internal and external distracters, sustained concentration, divided attention and simultaneous attention.

Table 1: Comparing performance of participants on Cognitive Symptoms Checklist: Attention

Variable	Patient with schizophrenia (N=30)		Normal control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Internal Distracters: Physical	3.87	1.72	1.17	0.87	7.68**
Internal Distracters: Emotional	5.30	2.60	1.30	1.02	7.84**
Internal Distracters: Visual	2.30	0.87	0.43	0.68	9.22**
Internal Distracters: Auditory	2.03	0.76	1.00	0.69	5.48**
Internal Distracters: Environmental	2.03	0.61	0.76	0.68	7.57**
Sustained Concentration	6.27	3.19	1.40	1.04	7.93**
Divided Attention	2.40	1.27	1.07	0.64	5.11**
Simultaneous Attention	3.63	1.88	1.62	1.18	4.90**
CSC Attention Total Score	27.84	9.05	8.72	3.14	10.56**

**P<0.01

Table 2 shows a statistically significant difference (p<.01) between both groups in memory, suggesting poorer memory in schizophrenia patients in comparison to normal controls in memory related to activities of daily living, time, receptive language, expressive language and personal memory.

Table 3 suggests that the difference between scores of study group was statistically significant (p<.01) in vision, suggesting presence of visual cognitive deficits in patients of schizophrenia in mental imagery, visual fields/ neglect, scanning, figure/ ground, discrimination, organization and spatial relationships.

Table 2: Comparing performance of participants on Cognitive Symptoms Checklist: Memory

Variable	Patient with Schizophrenia (N=30)		Normal Control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Activities of daily living: Medication	2.50	2.56	0.27	0.45	4.71**
Activities of daily living: Nutrition/Food Preparation Sequence	3.07	3.36	0.37	0.49	4.35**
Activities of daily living: Safety	1.63	1.96	0.20	0.61	3.83**
Activities of daily living: Routines	0.97	1.13	0.30	0.65	2.80**
Activities of daily living: Money Management	1.90	1.77	0.33	0.55	4.63**
Activities of daily living: Spatial Relationships	2.50	2.14	0.40	0.62	5.15**
Time	2.53	2.06	0.47	0.51	5.33**
Receptive Language	2.93	2.26	0.83	0.83	4.78**
Expressive Language	2.27	1.84	1.20	0.96	2.82**
Personal	1.87	1.04	0.87	0.51	4.73**
CSC Memory Total Score	22.17	16.150	5.23	2.99	5.65**

**P<0.01

Table 3: Comparing performance of participants on Cognitive Symptoms Checklist: Vision

Variable	Patient with Schizophrenia (N=30)		Normal Control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Vision	3.87	2.71	0.37	0.72	6.83**
Visual Fields/Neglect	3.20	3.40	0.33	0.55	6.38**
Scanning	1.83	1.37	0.43	0.63	5.10**
Discrimination	1.50	1.63	0.23	0.43	4.10**
Figure/Ground	1.73	1.53	0.53	0.63	3.97**
Mental Imagery	2.43	2.11	0.57	0.81	4.51**
Spatial Relationships	5.43	4.80	1.03	0.89	4.93**
Organization	2.17	2.39	0.50	0.63	3.69**
CSC Visual Process Total Score	22.17	15.40	4.00	2.96	6.34**

**P<0.01

Table 4: Comparing performance of participants on Cognitive Symptoms Checklist: Language

Variable	Patient with Schizophrenia (N=30)		Normal Control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Hearing	2.53	1.96	0.27	0.58	6.07**
Speaking	1.93	1.89	0.40	0.50	4.29**
Receptive Language (Auditory)	2.67	2.15	0.43	0.68	5.41**
Receptive Language (Written)	2.30	1.23	0.20	0.41	8.84**
Expressive Language (Speaking)	5.27	4.40	1.07	1.01	5.0**
Expressive Language (Writing)	4.97	3.32	1.10	1.27	5.96**
CSC Language Total Score	19.67	10.86	3.47	3.01	7.87**

**P<0.01

Table 5: Comparing performance of participants on Cognitive Symptoms Checklist: Executive function

Variable	Patient with Schizophrenia (N=30)		Normal Control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Processing Speed/Reaction Time	2.97	2.48	1.03	1.00	3.95**
Initiation/Follow-Through	1.87	1.52	0.33	0.71	4.99**
Self correction	2.13	1.59	0.57	0.86	4.74**
Mental Flexibility	2.20	1.21	0.87	0.93	4.76**
Planning	4.37	3.01	0.97	1.10	5.81**
Sequencing	3.14	2.60	0.77	0.86	4.73**
Problem Solving	4.23	2.98	1.60	1.43	4.36**
Organization	3.57	2.81	1.23	0.86	4.35**
Reasoning	4.47	2.72	1.67	1.09	5.22**
CSC Executive Functions Total Score	29.31	17.37	9.03	6.28	6.00**

**P<0.01

Table 4 indicates that the difference between scores of study group statistically significant (p<.01) with patients with schizophrenia having more difficulties in hearing, speaking, receptive language (auditory), receptive language (written), expressive language (speaking) and expressive language (writing) in comparison to normal controls.

Table 5 shows that the study groups were significant different (p<.01) in executive function, suggesting poorer executive function in schizophrenia patients in comparison to normal controls. The deficits were evident in mental flexibility, processing speed/ reaction time, planning sequencing, initiation/ follow-through, self-correction, problem-solving, organization and reasoning.

Table 6 compares findings of A-ONE Part-I variables between patients with schizophrenia and normal controls. The patient group scored higher than normal control group. The difference was statistically significant in dressing and communication independence score, which shows that patients performed significantly poorer. However, there was no significant difference in grooming and hygiene variables, transfers and mobility, feeding and communication neuro-behavioural score.

Table 6: Comparing performance of participants on A-ONE part-I

Variable	Patient with Schizophrenia (N=30)		Normal Control (N=30)		t (df=58)
	Mean	SD	Mean	SD	
Dressing Independence Score	19.33	1.88	20.00	0.00	1.94*
Dressing Neurobehavioral Score	0.47	0.94	0.00	0.00	2.73**
Grooming and hygiene Independence Score	23.80	0.76	24.00	0.00	1.44
Grooming and hygiene Neurobehavioral Score	0.10	0.30	0.00	0.00	1.79
Transfers and Mobility Independence Score	20.00	0.00	20.00	0.00	.00
Transfers and Mobility Neurobehavioral Score	0.03	0.18	0.00	0.00	1.00
Feeding Independence Score	15.87	2.25	16.00	0.00	0.32
Feeding Neurobehavioral Score	0.33	0.76	0.00	0.00	2.41
Communication Independence Score	7.80	1.09	8.00	0.00	1.00**
Communication Neurobehavioral Score	0.07	0.36	0.00	0.00	1.00

*P<0.05, **P<0.01

DISCUSSION

The obtained result suggested that schizophrenia patients had poorer attention, memory, vision, language and executive function, and few neuro-behavioural functions. On Cognitive Symptoms Checklist: Attention schizophrenia patients had impairment on internal distracters: emotional, internal distracters: physical and simultaneous attention area is more affected in comparison to internal distracters vision, internal distracter auditory, internal distracters: environmental and divided attention. An attention deficit is reported in previous studies also. Schizophrenia patients are reported to have inadequate storage capacity on digit span forward (Dickinson et al., 2007). and display more deficits on tasks requiring allocation of attention to relevant objects compared to tasks requiring object identification through focused attention (Fuller et al., 2006). Information processing deficits have been reported by Chattopadhyay et al. (2020).

On the Cognitive Symptoms Checklist: Memory, it has been found that the patient group had poorer performance than the control group on all variable of memory. Variables on activities of daily living: nutrition/food preparation sequence, receptive language, time, activities of daily living: spatial relationship and activities of daily living: medication were more affected in comparison to activities of daily living: safety, activities of daily living e g.: routines, activities of daily living: money management and personal. These findings are comparable with studies showing that patients with schizophrenia have impaired memory (Keefe et al., 1999). Kern et al., 2010, in their systematic study, found that patients with schizophrenia were able to perform well in tasks requiring the identification of perceptually degraded material and semantic category production, which indicated that patients with schizophrenia have good implicit memory but tend to perform poorly on tasks requiring explicit cued recall indicative of impairment in explicit memory. Elvevaag et al. (2000) found that the deficits were not attributable to deficits in attention, which indicate the explicit memory tends to get impaired in schizophrenia. An intake and nineteen months follow up study identified verbal memory as the most severely impaired domain of cognition among patients with schizophrenia (Censits et al., 1997). Hoff et al. (1999) reported that the impairment appears to be relatively permanent. Nevertheless, a reverse trend was found concerning tasks requiring recognition (Pelletier et al., 2005). Aleman et al. (1999) found that patients displayed lesser errors in tasks requiring recognition than recall for verbal and nonverbal material, which indicated that the recall aspect of memory tends to be more impaired in schizophrenia, and this may be due to inadequate consolidation of information while encoding and deficits in retrieval.

On the Cognitive Symptoms Checklist: Vision subscale, the patient group, scored higher than the normal control group on all memory variables. Variables on spatial relationship, vision, and visual fields/neglect are more affected. These findings are comparable with studies that have shown that patient with schizophrenia has a deficit in visual perception. Most studies using judgment of line orientation test to assess visual perceptual ability, reports deficits in visual perception. Researchers using block design subtest of the WAIS, have also shown similar results. On the Cognitive Symptoms Checklist: Language subscale, the patient group, scored higher than the normal control group on all language variables. Variables on expressive language (speaking) and expressive language (writing) were more affected in comparison to hearing speaking and receptive language (auditory). Gold et al. (1997) found that semantic fluency performances were more impaired than phonological fluency in schizophrenia patients. This indicated that the semantic system organization tend to be disturbed due to the illness, which is likely to affect speech, but there are limited empirical studies to substantiate the relationship. Hirano et al. (2020) cited a few research works showing relatively milder impairments in schizophrenia patients in language processing using imaging studies. However significant impairment in areas of language functioning, especially receptive and expressive language was shown in several studies. (Whittaker et al., 1994; Kalkstein et al., 2015)

On the Cognitive Symptoms Checklist: Executive function subscale, the patient group, scored higher than the normal control group on all executive function variables. Variables on reasoning, problem-solving, planning, organization were more affected. Among the several neuropsychological deficits identified to be present in schizophrenia, executive processing has been found to be significantly impaired. Executive functions are cognitive abilities of the higher-order that controls decision making and deal with the "how" and "whether" aspects of behaviour, instead of the more straightforward "what" and "how much" functions addressed by other cognitive domains (Lezak, 2004). Orellena and Andrea (2013) in their review examined several studies which explored the executive functioning of patients with Schizophrenia. They reported that schizophrenia as an illness can impact the decision making and ability of self-regulation and is resultant of the alteration of pre frontal cortex of brain. They also found a close association between negative symptoms and executive dysfunction as well.

The present study assessed neuro-behavioural dysfunctions. The obtained results showed that patients performed poorer on the variable of dressing independent score, dressing neurobehavioral score and communication independent score while on some variable patient perform like normal control group on the variable of grooming and hygiene

independence score, grooming and hygiene neurobehavioral score, transfer and mobility independence score, transfer and mobility neurobehavioral score, feeding independence score, feeding neurobehavioral score, and communication neurobehavioral score. Mohamed et al. (1999) suggested that patients with schizophrenia have generalized deficits that cannot easily be explained by a single anatomical region or ability area.

Overall findings suggest that patients with schizophrenia have deficits in attention, memory, vision, language, executive function, motor ability, and daily living activities compared to normal control. Patient with schizophrenia has poor executive functions and poor activities of daily living in dressing, grooming and hygiene, transfer and mobility, feeding and communication. The present study included had only male participants. Further research is required on female patients and various subgroups of schizophrenia. Research on out-patients on a larger sample will provide more insight into the neuro-cognitive-behavioural deficits of schizophrenia patients. Management of these neuro-cognitive-behavioural deficits is essential in the overall intervention to improve quality of life.

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Relationship between Social Networking, Social Physique Anxiety and Self-Esteem among Adolescents in New Delhi

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ABSTRACT

Social physique anxiety (SPA) is the feeling of distress experienced in response to others evaluation of one's physique. Social networking has become an integral part of our lives. It is often used as a medium for sharing life experiences with the world and allowing an evaluation of oneself by others. This growing trend and reported research literature depicting social networking use to influence an individual's self-esteem encouraged the authors to explore the role of social networking usage with SPA and adolescents' self-esteem. The study sample comprised school-going adolescents from Delhi (N= 60 adolescents, 40 females and 20 males) with age ranging from 14 to 18 years. Leary's Social physique anxiety scale and Rosenberg's self-esteem scales were administered on the participants, and their duration of social networking usage per week was noted. The result indicates a significant relationship between social networking usage (SNU) and SPA, with more prominent usage suggesting higher SPA scores in participants. Further, the greater the time spent on social networking sites lower was the participant's self-esteem, with gender playing no significant role in both SPA and self-esteem levels. Lastly, a negative correlation was found between SPA and self-esteem, which identified participants with significant scores of SPA to have decreased self-esteem and vice-versa.

Keywords: *Social Physique Anxiety, Social Networking Usage, Self-Esteem*

INTRODUCTION

Social Networking can be understood as the usage of platforms such as Twitter, Facebook, Instagram, MySpace, blogs or LinkedIn etc. Facebook's entry in 2004 (Stollak et al., 2011) has revolutionized social networking globally and is still growing at a fast pace. The availability of affordable smartphones has helped its spread in the masses. Social networking sites are prevalent among all age groups; however, adolescents are the most avid users of social media. (Hernandez, 2010; Perrin, 2015) Recent research have shown that the use of Facebook (71%) is the highest, followed by Instagram (52%) and Snapchat (41%) among the adolescent population. (Buja, et al., 2018) The education level has been shown to have a positive correlation with the use of social media. (Stollak, et al., 2011) It was suggested that social networking usage might reduce life satisfaction and cause more significant feelings of unfairness regarding individual's own lives. (Smith & Kim, 2007)

In the developmental stage of adolescence, people are very conscious about their looks and body image. The usage of these sites exposes adolescents to images of perfect physique flaunted by many celebrities and professionals. Adolescents are incredibly vulnerable to fall prey to such messages because of their developmental stage. It has the potential to increase anxiety about their own negatively perceived physique. This may fuel their social physique anxiety, which comes under the subtype of social anxiety. It results from the presence or anticipation of interpersonal evaluation of one's physique (Hart, Leary, & Rejeski, 1989). It is a kind of distress that people experience with the perceived evaluation of their physiques, and the anxiety becomes the standard response to appearance-related appraisals and feedback (Sabiston et al., 2007).

It is widely seen in adolescents that the feedback and perceptions about their physical appearance have greater control over their self-esteem. (Harter, 1999). Sigelman (1999) described self-esteem as the comprehensive evaluation of an individual's worth, high or low, derived from positive and negative self-perceptions that form the self-concept. In other words, it boils down to the judgement a person makes about him/herself regarding various things (Baily, 2003). Individuals experiencing low self-esteem are prone to have avoidance focus in order to protect themselves from conceivable harm. On the contrary, high self-esteem is maintained and enhanced by individuals exhibiting approach motivation (Baumeister et al., 1989; Heimpel et al., 2006). Thus, any situation that seeks to result in a negative evaluation of their body can either force them to live up to the expectation of "perfect" body image or make them give up the hope of achieving the perfect body.

There is a growing concern to understand the relationship between social networking usage and mental health issues, particularly among the young generation. Several studies have claimed that excessive social networking usage has become a sort of behavioral addiction. (Andreassen, 2015). Moreover, a positive relationship is seen between excessive Facebook use and low self-esteem (De Cock et al., 2014). So, it seemed promising to enquire the social networking usage and its relation to social physique anxiety and self-esteem in Indian settings, particularly among school-going adolescents. It was hypothesized that time spent in Social networking usage is likely to increase Social Physique Anxiety and lower self-esteem among adolescents.

MATERIALS AND METHODS

Sample: Sixty adolescents were enrolled in the study (females N=40, males N=20). The students of Secondary and Higher Secondary grade were contacted in their coaching classes in New Delhi. Age of the subjects was ranged between 14-18 years with a mean of 16.18 years. While considering the research design of the study, it was thought advisable to select purposive sampling method. Data was collected only after getting individual consent from all research participants.

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Demographic Data Sheet: Demographic data sheet was used to collect information of the subjects for age, gender, education qualifications.

Social Networking Usage: It was assessed considering number of hours of social networking usage per week.

Social Physique Anxiety Scale (SPAS) (Hart, Leary, & Rejeski, 1989)

Social Physique Anxiety scale was developed with a purpose to measures social anxiety related to physique or body form and structure. The scale is consisted of 12 items. The responses in the scale are on a 5-point Likert scale (Scoring 1 to 5). Higher scores on the test predicts higher Social Physique Anxiety. The scale has high inter-item reliability. Test-retest reliability was also found to be r= .82.

Rosenberg Self-Esteem Scale (1965)

It most frequently used scale to asses Self-esteem. This scale is a type of self-report instrument comprised of 10 items. The responses are scored on Likert type scale with response format of Strongly Agree to Strongly Disagree. It has high Internal consistency reliability r=0.88. Test-retest reliability also found to be satisfactory i.e., 0.85. Criterion validity was found to be satisfactory. Construct validity computed is negatively correlated with anxiety and depression (r=- 0.64 and -0.54, respectively). Higher score on the RSE shows high Self-Esteem among the subjects.

Statistical analysis: The statistical analysis most pertinent to the research objectives (using SPSS 16.0) were descriptive statistical analysis, MANOVA and Pearson's Correlation.

RESULTS

The sample characteristics have been reported in table no.1. It is evident from this table that out of total sample N=60, 40 (66.7%) were female and 20 (33.3%) were male school students. Maximum social networking usage was reported by 31 (51.7%) participants for more than >14 hr per week, followed by N=23 (38.3%) reported using social networking sites for 7-14 hr per week. Lastly, 6 students were on social networking sites for less than < 7hr per week.

Table 1. Sample & Descriptive Statistics

Age Range	Minimum 13 Years	Maximum 18 Years	Mean 16.15 Years	SD 1.246
Male		N=20	33.3 %	
Female		N=40	66.7%	
Total		N=60	100%	

	Social Networking Usage	Mean	Std. Deviation	N
Social Physique Anxiety	< 7hr per week	26.67	11.075	6 (10.0%)
	7-14 hr per week	30.09	6.452	23 (38.3%)
	>14 hr per week	45.42	5.309	31 (51.7%)
	Total	37.67	10.321	60 (100%)
Self-esteem	< 7hr per week	32.17	3.488	6
	7-14 hr per week	23.96	6.256	23
	>14 hr per week	17.84	2.647	31
	Total	21.62	6.336	60

The results of descriptive statistics have been reported in table no. 1. The mean of total score of Social Physique Anxiety when the subjects used social networking sites for less than seven hours a week was 26.67 and for 7-14 hours of social networking usages was 30.09. The mean score on Social physique anxiety was highest among those whose social networking usage was more than 14 hours a week (M=45.42).

In case of Self-esteem, the participants who use social networking for less than 7 hours a week had mean score of 32.17, on self-esteem, followed by (23.96) for 7-14 hr per week social networking. Lowest mean score on self-esteem was reported in the category of more than 14 hours use of social networking.

Table 2. Multivariate Analysis of Variance among Social Networking Usage, Gender and Social Physique Anxiety, Self-esteem

Source	Dependent Variable	Sum of Squares	df	MS	F	Sig.
Corrected	Social Physique Anxiety	3976.303[a]	3	1325.434	32.145	.01*
	Self-esteem	1243.341[b]	3	414.447	20.633	.01*
Intercept	Social Physique Anxiety	3895.723	1	3895.723	94.481	.01*
	Self-esteem	2832.339	1	2832.339	141.007	.01*
Gender	Social Physique Anxiety	65.678	1	65.678	1.593	.21
	Self-esteem	7.141	1	7.141	.355	.55
Social Networking Usage	Social Physique Anxiety	3948.270	2	1974.135	47.878	.01*
	Self-esteem	1240.932	2	620.466	30.890	.01*
Pearson's r (SPA and Self-esteem)			-.55**			.01**

Table 2 shows the results of Multivariate ANOVA computed to tap difference between Social Physique Anxiety, and other variable of the study i.e., self-esteem and social networking usage with gender. The F value computed between social networking usage and social physique anxiety is found to be 47.878 which is significant at .01 p level and the F value of interaction between SPA and self-esteem scores is 30.890 which is highly significant at .01 p level.

A significant negative correlation was reported among social physique anxiety and self-esteem (r= -.55*, significant at .01 p level), which indicates that higher social physique anxiety will lead to lower self-esteem among adolescents. Gender differences were found to be non-significant.

DISCUSSION

The study examined the role of hours spent engaging in social networking platforms on social physique anxiety and self-esteem in adolescents studying in senior and senior secondary grade.

It is clear from the descriptive statistics table that the mean value of scores of participants who used social networking for a longer duration tends to be high for social physique

anxiety and low for self-esteem. This suggests that students who have higher social networking usage are more likely to experience greater levels of social physique anxiety and a reduced sense of self-esteem. Significantly high SPA leads to negative self-assessment of physical appearance, low confidence, and diminished levels of self-esteem. It also indicates negative self-evaluation by individuals of their self-worth, representing their capacity to feel worthy of happiness and address life challenges.

It can be inferred from the multivariate analysis of variance that on account of gender, no difference was found among participants social physique anxiety and self-esteem scores. This is inconsistent with the existing body of research, which points towards the significant role of gender in the experience of social physique anxiety and level of self-esteem in individuals. Rothberger et al. 2015, concluded that self-efficacy and gender were significant predictors of SPA in college students. Further, lower self-efficacy determined more significant social physique anxiety in participants. On similar lines, Hagger & Stevenson, 2010 also claimed that females are likely to have significantly higher levels of social physique anxiety and lower levels of self-esteem while compared with their counterparts.

Lastly, social physique anxiety was found to be correlated negatively with self-esteem (r=-0.55). This significant negative correlation between SPA and self-esteem demonstrates that increased negative apprehension about one's physique will further lower down the evaluations of self-worth & vice versa. Similar findings regarding relationship between excessive Facebook use and low self-esteem were reported by De Cock et al., 2014.

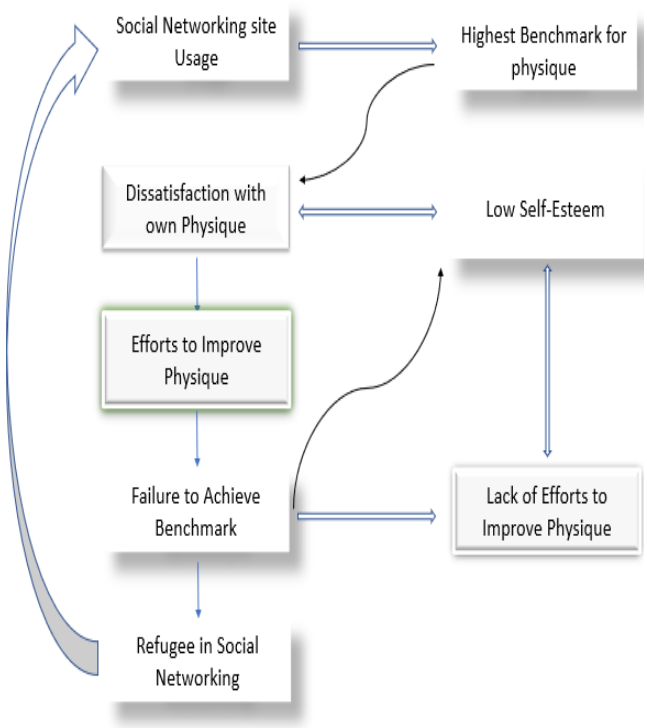

Fig. 1: A tentative formulation of relationship between Social Networking Usage, Social Physique Anxiety and Self-esteem based on the findings

The hypothesis of the study is accepted. A possible tentative formulation based on the study findings is provided in Figure 1. It states that the duration of social networking usage sets a high benchmark for one's physique. It leads to dissatisfaction with their body, resulting in low self-esteem and efforts to improve appearance. However, these efforts can lead to failure because the benchmark is very high, almost impossible to achieve. It further adds to their low sense of self. Failure to achieve the benchmark also leads to a lack of efforts and refuge in social networking sites. It keeps the person in the self-defeating circular cycle of usage, dissatisfaction and poor self-esteem.

LIMITATIONS & CONCLUSIONS

The study has a relatively small sample size which restricted prominent insight. A larger sample could have helped achieve a more comprehensive understanding and increase generalizability. The role of gender could have been explored with more planning. The quality and variety of social networking exposure can be considered in future studies as a plausible factor affecting an individual's experience. In conclusion, a longer duration of time spent on social networking sites is associated with higher levels of social physique anxiety and lower self-esteem. However, contrary to the existing body of research, gender was found to make no difference in the above. Lastly, an inverse relationship was reported between self-esteem and social physique anxiety which further substantiate the claim that higher the level of social physique anxiety, sub-average will be the self-esteem and vice-versa.

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Personality & Emotional Regulation: A comparison between Medical and Non-Medical Professionals

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ABSTRACT

Aim: To explore emotional regulation and personality styles in healthcare physicians compared to non-medical professionals. In the last decade, numerous studies have focused on three new personality traits; Narcissism, Machiavellianism and Psychopathy, which together have been called "The Dark Triad". Emotional regulation refers to range of activities allowing an individual to respond to the ongoing demands of experience with the range of emotions that is socially tolerable & flexible to permit or delay spontaneous reactions as needed. Healthcare professionals are exposed to emotionally intense incidents that can be negative or positive.

Methods: The study used convenience sampling. The tools used in the study were: Dark Triad of Personality questionnaire and Difficulty in emotional regulation scale.

Statistical analysis: t-test; Chi-squared test; Fisher's exact test; linear regression using Stata version 14

Results: Significant difference was seen between the groups on the domain of psychopathy (dark triad). The groups did not differ on any domain of emotional regulation (control group 20.03+-5.17). On linear Regression, gender was significantly associated with psychopathy (M- 23.74(6.43), F- 18.52 (2.97) (p- 0.0004) and educational status was significantly associated with impulse control difficulty (p< 0.0002; CI= -5.11; -1.24). No significant difference on dark triad personality was seen across age-groups. Results indicated that gender was significantly associated with psychopathy (M- 23.74(6.43), F- 18.52 (2.97) (p- 0.0004) and educational status was significantly associated with impulse control difficulty (p< 0.0002; CI= -5.11; -1.24). (2.97) (p- 0.0004).

Keywords: *Dark Triad, Emotion-Regulation, Personality Trait*

INTRODUCTION

Personality is a well known concept in the field of psychology and it is believed that it is the personality styles that help an individual interact effectively with the environment. In the last decade, numerous studies have focused on three particular traits of personality that influence success, creativity and interpersonal relationship. These three traits namely, Narcissism, Machiavellianism and Psychopathy have together been called "The Dark Triad". This theory gained importance through the work of Paulhus & Williams in the year 2002 (Paulhus, 2002) and is now gaining popularity by the name of "James Bond Psychology" (Jonason, 2012).

According to the Dark Triad theory, Psychopathy is characterized by callousness and limited empathy, Machiavellianism is characterized by having a social charm, but also being somewhat manipulative and narcissism includes a sense of superiority and entitlement. Usually, these traits are considered as negative and undesirable (Jonason, 2013). Though, recent work suggests that individuals with these traits are gaining success in certain areas of life such as career, sexual life and social life. Also, it has been hypothesized that individuals with these traits may fare better at workplace (e.g., with better negotiation skills, lower expressed stress, and preference for jobs with greater responsibility.

In a recent study, Nubold and his colleagues (Nübold A, 2017) proposed that it is important to look at the three traits from a dynamic point of view, that is not as stable characteristics, but being activated due to certain situations, like competitive and demanding work environment, stressful periods especially where immediate decisions need to be taken. (Langan-Fox, 2007)

It is hypothesized that some of these personality traits are present in the health care profession and specifically within certain disciplines.

In a recent study, 248 healthcare professionals (including doctors and nurses) were compared with 159 people from general population. (Nübold, 2017) It was seen that as compared to general population, healthcare professionals scored low on all three dimensions of the Dark Triad Personality. However, within the healthcare professional groups, surgeons scored highest on the dimension of narcissism and nurses scored higher on psychopathy as compared to other medical professionals.

Emotional Regulation refers to range of activities that allows an individual to respond to the ongoing demands of experience with a wide range of emotions, in a manner, that is socially tolerable & flexible to permit or delay spontaneous reactions as and when needed. It also encompasses acceptance of own and others' emotions and ability to control impulses and/or emotional reactions in stressful situations. Individuals differ in emotion regulation strategies which is a reflection of their personality traits (Bucknall, 2015).

Emotional regulation encompasses various components - awareness of what one feels at any given point of time, clarity of why that feeling/emotion is occurring, and when under stress - being able to regulate one's own emotions, control one's impulses, engage in goal-directed behavior, focus on the tasks/goals at hand, willingness to accept the

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emotional responses that come up, and an ability to access adequate strategies for feeling and responding. (Gross, 1998b*;* Gross, 2007)

Healthcare professionals are faced with incidents that are emotionally charged and can be negative (i.e., patient suffering, death, breaches of patient safety) or positive (i.e., positive role models exhibiting compassion, empathy, saving lives, gratefulness of patients). (Hall, 2011) It has been hypothesized that healthy emotional regulation strategy guards them from burnout and other kinds of stress which may add to poor service delivery and other predicaments in their personal and professional lives.

Numerous studies have tried to investigate the relationship between dark triad and emotional regulation; however, the results have been conflictual. (Austin, 2015) One study found positive relation between dark triad and managing emotions of others, while another research reported that narcissism and psychopathy were negatively related to regulating emotional experiences post a negative event. (Kiehl, 2010) A recent study found that, grandiosity and leadership facets of narcissism were negatively linked to emotional dysregulation in college students; while callous aspect of psychopathy was positively associated with emotion dysregulation (Vonk, 2015).

Stress is an inevitable part of a healthcare professional's job is – long-working hours, lack of sufficient resources, taking immediate decisions regarding life and death, dealing effectively with patients and caregivers' expectations etc. Thus, it is necessary to understand the personality and emotion regulation of the doctors so that not only the doctor-patient outcome can be improved, but these aspects can be enhanced for their personal and professional development. To the best of our knowledge, there are no published studies on this aspect in the Indian setting and scarcity of literature even from western settings.

METHOD

AIM

The aims and objectives of the current study were to explore emotional regulation and personality styles in healthcare physicians and compare the same with non-medical professionals. Convenience sampling was used to gather data from Delhi-based medical practitioner (n=60) and controls (n=56) matched for gender. The inclusion criteria were individuals of both genders, aged between 25-70 years, with fluency in English. Individuals who had atleast completed their MBBS or BDS were taken for the medical group and those with graduation (non-medical) were taken as controls. In both groups, individuals with history of head injury, psychiatric illness, chronic physical illness (except diabetes or hypertension) and those with current or past history (last 6 months) of acute stress were excluded from the study.

The tools used in the study were Dark Triad of Personality questionnaire (D3) (Paulhus, 2002) and Difficulty in emotional regulation scale (DERS) (Gratz & Roemer, 2004). Dark Triad of Personality Questionairre is a 27-item scale on a 5-point Likert scale, which assesses personality on 3 sub scales namely, machiavellianism, narcissism and psychopathy. This test has good concurrent and predictive validity.

Difficulty in emotional regulation scale is a 36-item scale likert scale which assesses emotion regulation on 6 subscales namely non-acceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies and lack of emotional clarity.

Ethical permission was taken from a General hospital in Delhi. Confidentiality was maintained for the information collected from the participants,. Informed consent was taken from each participant. Voluntary nature of participation was ensured and participants were told that they could withdraw at any point of time during the study. No harm was done during the study. No remuneration was provided to the participants.

During the study, once the participants were screened for inclusion/exclusion criteria, they were given the information regarding the study and were requested to sign the consent sheet. Then, they were asked certain questions about their demographics. Further, they were asked to fill the two questionnaires on personality and emotional regulation. The session took approximately 25-30 minutes. The data was entered in Excel and then calculation was done using Stata version 14.

RESULTS

As can be seen from Table 1, for the medical group, mean age was 39.08 years (SD= 10.29) with more than half falling in the age range of 25-40 years (55%). Majority of the participants were Hindus (n= 47; 78%). 80% of the participants had completed their post-graduation (n = 48). All of them were currently employed, with more than 50% of them working in government service (n=35). Majority of them were married (n= 44; 73%).

In the control group, mean age was 31.75 years (SD: 6.38) with a little more than half of participants falling in the age range of 25-40 years (89%). Majority of the participants were Hindus (n= 40; 71%). Only 59% of the participants had completed their post-graduation (n= 33). 79% of them were currently employed full time (n=44) with 75% of them working in private sector (n=42). About half of them were married (n= 28)

A significant difference was seen in the two groups with respect to age, with controls being younger than the medical group ($p< 0.0001$); educational status with majority of medical professionals having a postgraduate degree ($p<0.05$); employment status with more medical professionals being employed ($p< 0.0001$) and marital status with majority of the medical professionals being currently married (p- 0.05) (Table 1).

Scores on each dimension of dark triad of personality and emotional regulation for each the groups as well as their comparisons are depicted in table 2. Values are expressed as Mean (SD).

Only the domain of psychopathy significantly differ between the two groups with controls being higher on the same. There was no significant difference between the groups on any domain of emotional regulation. The subjects within each group, were further divided into two age groups (25-40; 41-60) to explore personality styles across age

groups. No significant difference on dark triad personality was seen across age-groups. To understand the association between demographic characteristics with personality traits and emotion regulation, linear regression analysis was performed. Results indicated that gender was significantly

Table 1: Baseline character of Participants by Groups

Variable		Group			p-value
		Medical Professionals (n=60)	Controls (n=56)	Total (n=116	
Age		39.08 (10.29)	31.75 (6.38)	35.54 (9.34)	< **0.0001**[1]
Age Category	25-40 yr	33 (55%)	50 (89%)	83 (72%	< **0.00012**
	41-60 yr	27 (45%)	6 (11%)	33 (28%	
Gender	Male	27 (45%)	31 (55%)	58 (50%	0.2649[2]
	Female	33 (55%)	25 (45%)	58 (50%	
Religion	Hindu	47 (78%)	40 (71%)	87 (75%	0.3908[2]
	Other	13 (22%)	16(29%)	29 (25%	
Education	Graduate	12 (20%)	23 (41%)	35 (30%	**0.0135**[2]
	Post graduate	48 (80%)	33 (59%)	81 (70%	
Employment	Unemployed	0(0%)	5 (9%)	5 (4%)	**0.0001**[3]
	Part time	0(0%)	7 (13%)	7 (6%)	
	Full time	60 (100%)	44 (79%)	104 (90%	
Occupation	Government	35 (58%)	10(18%)	45 (39%	< **0.0001**[3]
	Private/Self/ Multiple	20 (33%)	42 (75%)	62 (53%	
	Housewife/ Student	5 (8%)	4 (7%)	9(8%)	
Marital status	married	44 (73%)	28 (50%)	72 (62%	**0.0097**[2]
	unmarried	16 (27%)	28 (50%)	44 (38%	
Medical illness	no	53 (88%)	50 (89%)	103 (89%	0.8709[2]
	yes	7 (12%)	6 (11%)	13 (11%	
Psychiatric illness	no	59 (98%)	53 (95%)	112 (97%	0.3517[3]
	yes	1 (2%)	3 (5%)	4 (3%)	

1 t-test; 2: Chi-squared test; 3: Fisher's exact test

Table 2: Personality and Emotional Regulation among participants Across Groups

Variable	Group			p-value
	Medical Professionals (n=60)	Controls (n=56)	Total (n=116)	
Machiavellianism	27.87 (5.58)	29.57 (5.60)	28.69 (5.63)	0.1034
Narcissism	27.28 (4.41)	28.73 (4.57)	27.98 (4.53)	0.0851
Psychopathy	18.75 (4.19)	21.41 (5.77)	20.03 (5.17)	**0.0051**
Nonacceptance	11.50 (4.49)	13.04 (5.60)	12.24 (5.09)	0.1048
Goals	13.10 (4.28)	13.27 (4.26)	13.18 (4.25)	0.8327
Impulse	11.87 (4.14)	11.71 (4.90)	11.79 (4.50)	0.8564
Awareness	15.78 (3.77)	15.39 (4.10)	15.59 (3.92)	0.5942
Strategies	15.40 (6.44)	16.93 (6.32)	16.14 (6.40)	0.2002
Clarity	10.52 (3.27)	10.38 (3.94)	10.45 (3.59)	0.8330
Emotional regulation	78.33 (18.28)	80.64 (21.84)	79.45 (20.02)	0.5371

t-test

associated with psychopathy (M- 23.74(6.43), F- 18.52 (2.97) (p- 0.0004) and educational status was significantly associated with impulse control difficulty (p< 0.0002; CI= -5.11; -1.24).

DISCUSSION

The current study aimed to understand personality styles (dark triad) and emotion regulation in healthcare physicians in comparison to non-medical professionals. To the best of our knowledge, this is the first of its kind study on the Indian population which has tried to explore dark triad personality traits in healthcare professionals.

The medical and control group differed significantly on domain of age, educational status, occupational and marital status. These findings are understandable with respect to time taken for medical professionals to complete their degrees. After education, doctors can settle down into practice, whereas non-medical professionals have to rely on corporates for their employment or start their own businesses. Given the time required to finish their studies, many medical professionals usually get married during their residency and therefore in our sample, more medical professionals were married as compared to controls.

Like earlier research, results from the current study indicated that although medical professionals scored lower on all domains of dark triad as compared to the control group, however the difference was significant for the domain of psychopathy, (Mudrack, 1989) with Control group scoring higher than the medical professionals. This could be explained with regard to age as those in control group were significantly younger than the medical group (Hare, 1994). Similar findings have been reported in another study where age has been found to be negatively

correlated with psychopathy, narcissism and machiavellianism (Wilson, 2011; Barlett, 2015).

There is increased prevalence of psychopathic traits in males, also younger males with low levels of education are at higher risk for the diagnoses. Psychopathy though, has been reported to steadily decline with age (Werner, 2015)

Another factor at play could be the profession of those in the control group. Majority of the participants were working in the corporate sector. It has been postulated that people working in corporates are highly career oriented but harsh, sometimes unethical and at times unfair towards certain employees (Boddy, 2017).

Along with that, impulse control seems to be getting better with education. Impulsivity has been related to a wide range of personality traits, especially with psychopathy and narcissism. These findings are consistent with previous studies. In a study by Wiehe et al, (Wiehe, 1987) on impulsivity and education it was concluded that with increase in education, impulsivity automatically decreases. The other way also seems to be true. High impulsivity seems to lower the academic performance as greater impulse control seems to help individuals focus better on the task at hand**.**

The limitation of our study is small sample size. The sampling technique used was purposive sampling. Also, it was a cross-sectional study, which limits the possibility of understanding the cause-effect relationship. In further studies, it would be advisable to use gender, age and education matched sample with the larger sample size and using a longitudinal design.

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Client Reports of Themes and Goals in Couple Therapy: Findings from a Tertiary Care Hospital

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ABSTRACT

Distressed couples present for couple therapy with both intra- and inter-personal concerns. Therapists, therefore, have to be flexible and integrate conjoint and individual sessions. This study aimed to (a) understand and compare themes and goals from participants reports about conjoint and individual sessions, and (b) examine gender differences if any. A cross-sectional design was adopted and 46 married individuals (25 men and 21 women) were recruited through purposive sampling. A socio-demographic and therapy details' sheet and a structured interview schedule were measures used. Descriptive statistics and Fisher's Exact Test were used for analysis. Participants were aged 24-57 years. Majority of them were graduates, employed, having dual careers and residing in urban areas as a nuclear family. The findings indicate commonalities and differences in certain themes and goals frequently discussed and addressed in conjoint and individual sessions. The goal to improve communication patterns was reported by 91.3% of the participants in conjoint sessions but none in individual sessions. Themes such as issues of decision making and employment were reported by men more. The findings have implications to guide beginner therapists to integrate conjoint and individual sessions meaningfully, in combined couples therapy.

Keywords: *Combined Couples Therapy, Conjoint session, Individual session, Themes, Goals*

INTRODUCTION

Couples therapy is effective in treating marital discord that may or may not be coexisting with psychopathology in either partner. Research has generated ample evidence that it is relevant with varying different levels of readiness for change among partners, as well as different therapy experiences. Therefore, a flexible and integrative approach enables practitioners to address these various complexities involved in couple therapy. The combined couples' therapy format can be useful in addressing these issues through the integration of both individual and conjoint sessions in treatment. In 1964, Satir emphasized integration and flexibility in conjoint sessions through the use of individual sessions after a thorough understanding of the total family system. Since then, despite controversial evidence to avoid use of individual sessions in couple therapy, therapists continue to encounter session format challenges. Ables and Brandsma (1977) emphasized that therapists may utilize individual sessions for facilitating disclosure and address unrealistic fears and expectations that spouses may have. They also emphasized on the need for therapist neutrality and open discussion with the couple about how they feel about individual sessions. Burbatti, Castoldi, and Maggi (1993) advocated that as couples demand an emotionally involved relationship with the therapist, individual sessions are essential. They suggested that intervention techniques, rules and principles in individual sessions should remain the same as that of individual therapy, along with use of circular questions. Heitler (2001) suggested individual session format when there is a need to reduce symptoms, there is a presence of an intra-psychic conflict, resistance, and rupture in therapeutic relationship, secrets, and a fixed blaming stance with difficulty accepting one's role in the problem. They stated that conjoint therapy should be the primary treatment format and to include individual session when needed. One of the recent recommendations is that in order to create balance and avoid aligning with one partner, if one individual session was conducted for a partner, the other partner was also seen for an individual session (Johnson, 2005). While there are numerous such recommendations for the nature of couple therapy, couple work using only individual sessions has also been proposed when conjoint therapy is not indicated or not possible (Shah and Satyanarayana, 2011).

Based on a pantheoretical framework, themes and goals in conjoint sessions and individual sessions in the context of couple therapy can lend further insights into these session formats. Therapy goals refer to objectives of the therapy process that both clients and therapist value (Lambert & Barley, 2002). Therapy themes refer to the actual content being discussed in the session (Greenberg, 1986). To have knowledge of the themes that arise in combined couples therapy and the goals targeted are very important for a couple therapist. Previous studies have shown that the important themes of conjoint sessions were catharsis of the partners to express what they were experiencing, trust issues, focus on understanding, commitment or separation, parenting styles, prescription of rituals, exploration on marital interaction, bond, expectations and responsibilities. The important themes for individual sessions were reportedly empowerment of self and reduced dependency. Goals discovered for conjoint sessions have been goals of seeking support, improving marital relationship and learning relationship skills. Goals such as expressing self in the absence of partner, self-in-marriage concerns, learning to manage emotions and preparing for conjoint sessions have been reported in the individual sessions (DuPree, Bhakta, Patel, & DuPree, 2013; Kalra, 2008; Nagpal, 2016; Shah, Nagpal & Rynjah, 2016). Tambling, Wong & Anderson (2014) studied the expectations couples bring into the session. They report that couples expected therapy to focus on communication, relationship history, and personal history too so that the therapist would be able to link their personal and couple history with the presenting problems.

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Bodenmann (2010) emphasized on the presence of external stress (stress originating from outside the close relationship, such as stress at the workplace or stress with neighbours, family of origin, or children) and which negatively affects the individual and in turn the marital relationship. Thus, perhaps therapy needs to target individual stress, communication, enhancement of each partner's ability to appraise the partner's stress, and the enhancement of mutual dyadic coping. Goals can be designed based on presenting problems, communication, tense relationship with the in-laws and lack of physical affection or sex, criticalness between couples, and ambivalence on whether to continue with the commitment or separate (Boisvert, Wright, Tremblay & McDuff, 2011). Heitler (2001) used a case and demonstrated the implementation of combined individual and conjoint session formats to a couple with marital distress. The therapist used conjoint sessions to understand the couple's interaction pattern, to facilitate personal growth of each other engaging in teaching communication skills, to resolve conflicts as a team. The individual session format was chosen to reduce symptoms, when there is a presence of an intrapsychic conflict, resistance, rupture in therapeutic relationship, secrets, a fixed blaming stance with difficulty owing a role in the problems. Individual interventions helped to loosen up the system and yield change.

Research shows that communication difficulties is the most common goal of couples seeking marital therapy (Anker, Sparks, Duncan, Owen, & Stapnes, 2011; Shah et al., 2016; Tambling et al., 2014). Other common presenting complaints that couples report include trust, commitment, parenting, family of origin issues, sexual intimacy, infidelity, finances and value differences. Samples in several research reports in India, show a higher representation of couples in early life cycle stages, especially the first life cycle stage with average age less than 40 years (Isaac, 2004; Kalra, 2008; Shah et al., 2016). This could suggest that couples in their first life cycle stage more often seek therapy, and marital goals and themes related to this stage are more often addressed in therapy. Researches have shown the use of combined couples therapy with conjoint sessions versus individual sessions averages being about 16: 4 (Isaac, 2004, Kalra, 2008), 7: 3 (Nagpal 2016) for moderate to severe distress couples and 3:1 (Shah, 2016) for mild marital distress couples. No clear gender differences were evident across these studies. Overall, conjoint sessions were predominantly used and individual sessions were used as and when needed especially when an in-depth exploration of a problem is required or empowering a partner or addressing a partner's psychop**a**thology is needed.

This study aims to (a) understand and compare themes and goals through participants' reports about conjoint sessions and individual sessions, and (b) examine gender differences, if any.

METHOD

A cross-sectional design was adopted.

Sample:

Married individuals aged 20-60 years of both gender who were undergoing combined couples therapy (individual and conjoint sessions) or conjoint couples therapy (only conjoint sessions) at the time of data collection and had completed the initial phase of therapy, that is, intake and family assessment were included in the study. The data was collected from September 2017 to February 2018 from a tertiary care hospital in Bangalore. Those with presence of psychoses, mental retardation or any other severe neurological/medical conditions in either partner, and those undergoing any form of therapy with the researcher were excluded from the study. The total sample size was 46 individuals, 25 men and 21 women selected through purposive sampling method. There were 19 participants under combined couples therapy and 27 participants under conjoint couples therapy. The individual sessions of combined couples therapy constitute the individual sessions (n=19) and the conjoint sessions of combined couples therapy and conjoint couples therapy constitute the conjoint sessions (n=46).

Measures:

The Basic Information Sheet:

This was used to obtain socio-demographic details such as age, gender, education, occupation, residence, type of family, family life cycle, and nature of marriage. The therapy section included number of therapy sessions, number of individual and conjoint sessions, frequency of session, presence or absence of diagnosis.

A Structured Interview Schedule:

This was developed by the researcher for the present study to understand the themes and goals that arise in conjoint and individual sessions of couple therapy.

Step1

Items were generated from the existing literature on the themes and goals discussed in previous studies. The themes and goals listed in Tables 1 and 2 of Shah et al. (2016) and Appendix I and J of A-Priori list of therapy goals and themes respectively from Nagpal (2016) were expanded. Each statement was to be responded as "Yes" or "No" depending on whether the statements (themes/goals) had been discussed or targeted in the therapy sessions. If responded as "Yes", the participants were to report which type of sessions it was discussed in: conjoint session or individual session, or in both types of sessions.

Step 2

The first draft of the structured interview schedule consisted of 38 statements in themes and 16 statements in goals. Dichotomous wordings or long statements were avoided.

Step 3

A Focused Group Discussion (FGD) was held with three participants who have expertise in couple therapy for more than five years. The researcher was the facilitator for the FGD and maintained notes. The duration for FGD was 1 hour 45 minutes. The objective was to get the experts' opinions if the statements created reflect the themes and goals from which they were created. Statements approved by them were retained. For the statements which were not approved, recommendations for modifications were obtained. Gaining clarity on some of the identified themes and goals from the experts was also possible. The suggested modifications were made and the final tool was verified by

Table 1: Percentages for Themes in Conjoints Sessions and Individual Sessions

Sl No.	Statements	Themes	
		Conjoing session (n=46)	Individual sessions (n=19)
		%	%
1.*	Distress due to emotional difficulties	91.3	84.2
2.*	Ways to deal , handle with situations or stressors of daily lives	67.4	63.2
3.	Regrets related to marriage	43.5	47.4
4.	Traumatic childhood experiences	19.6	15.8
5.	Past relationships	39.1	31.6
6.	Psychiatric illness of oneself	34.8	36.8
7.	Psychiatric illness of the spouse	26.1	10.5
8.	Concerns about physical appearance – body weight, grooming	37.0	31.6
9.*	Discussions about one's own feelings, needs and expectations with reference to the idea of being a married person	80.8	68.4
10.	Your personality and/or your long-standing difficult personal issues	45.7	31.6
11.*	Concerns about your spouse's personality	52.2	57.9
12.*	Issues of decision making in day to day activities between the spouses	67.4	63.2
13.	Difficulties/ unwillingness to have a conjoint session (couple session)	06.5	05.3
14.	Issues of being the victim in the relationship	23.9	15.8
15.*	Issues of emotional closeness with the spouse.	76.1	63.2
16.#	Issues related to sexual relationship	50.0	42.1
17.*	Communication styles between the spouses	87.0	89.5
18.	Issues on financial matters	41.3	42.1
19.	Wife's financial independence	21.7	15.8
20.*	Discussions on goals to be achieved from therapy	87.0	78.9
21.*	New activities the couple could do or engage in.	73.9	64.7
22.*	Discussion on one's own and/or spouse's parents and/or siblings	87.0	73.7
23.*	Management of the household	58.7	57.9
24.	Issues of parenting	43.5	31.6
25.*	Roles and responsibilities	67.4	63.2
26.	Gender norms and stereotypes	28.3	21.1
27.	Issues of job or employment	47.8	36.8
28.#	One's friends circle and its relation to the couple's interaction	45.7	52.6
29.	One's beliefs on certain value/ ideology	45.7	36.8
30.#	Recreation activities	52.2	47.4
31.#	Experiences of violence in the marriage and family context	52.2	42.1
32.	Violence in the society/ neighbourhood/ or involving police	04.3	00.0
33.	Issues of extra marital affairs	10.9	05.3
34.	Concerns about commitment/ separation/ divorce	47.8	26.3
35.	Spirituality and religiosity	17.4	05.3
36.*	Origin and nature of current relationship since the beginning	87.0	84.2

* statements reported by at least 50% of the participants in both types of sessions
# statements reported by at least 50% of the participants in only one type of sessions

the authors. The final tool had 36 statements in themes and 16 statements in goals.

Step 4

In the pilot study, the structured interview schedule was administered to five married individuals (meeting the inclusion/exclusion criteria) undergoing combined couples therapy. No further modification was required on the tool. This step also familiarized the researcher to the process of administering the tools and recording data. The researcher took a neutral role during the interview and presented the statements in a friendly manner without inserting one's opinion in the process of the interview.

Procedure:

The study was approved by the Institute's Ethics Committee. Potential participants were identified and screened through existing records. Permission was sought from the therapist to recruit their clients so as to avoid any interference in the therapy or treatment processes. Once the permission was granted the initial contact with the potential participants was done in collaboration with the therapist to minimize likelihood of distress or discomfort experienced by them. They were informed about the nature of the study and were shared that their participation in the study was entirely voluntary. They were also informed about the freedom to withdraw their participation in the study at any time and that it will in no way affect the services they were availing at the hospital where the data was being collected. They were assured anonymity, and confidentiality and the information to be used only for academic purposes. Any doubts or clarifications about the same were addressed by the researcher and written informed consent was obtained. The individuals who gave consent (n=46) were interviewed using the Basic Information Sheet and Structured Interview Schedule.

Data Analysis:

Descriptive statistics such as median, range, frequencies, and percentages were used to analyse socio-demographic data, therapy details, the themes and the goals reported in conjoint and individual sessions. As the data was not normally distributed, Fisher's Exact Test was used to calculate husbands and wives differences on themes and goals.

RESULTS

Socio-demographic data:

The sample comprised of 46 married individuals seeking couple therapy. They were in the age range of 24-57 years. The median age of men and women are 36 years and 31 years respectively. The individuals in the study having a bachelor degree or higher was 91%. Out of 46 individuals, 80% were gainfully employed with 64% belonging to dual earner couples. Most of the individuals (96%) reside in urban areas, in a nuclear set up (67%). Family arranged marriage (72%) was more prevalent in this group of study. Majority of the sample fall in the family-cycle of married individuals with no children (44%). This is followed by families with school children (22%), families with school children (17%), child bearing families and families launching young adults (8% each) and families with teenagers (5%).

Therapy information and Structure

The average number of sessions was 7, with an average of 6 conjoint sessions and 2 individual sessions. This indicates that in couple therapy conjoint sessions were more frequently opted for and individual sessions were used as a supplement.

Majority of the couples had one or more than one session a week (96%) through out-patient basis (59%). Couples coming in for couple therapy, 41% did not report any clinical diagnosis in either of the spouses, 35% reported a clinical diagnosis in either of the spouses and 24% reported a child having a clinical diagnosis. The diagnosis in either of the spouses were Borderline Personality Disorder, Substance use, Generalised Anxiety Disorder, Obsessive Compulsive Disorder and Depression

Table 1 shows that themes of distress due to emotional difficulties, origin and nature of current relationship since the beginning, communication styles between the spouses, discussions on goals to be achieved from therapy, discussions about one's feelings, discussion on one's own and/or spouse's parents and/or siblings, needs and expectations with reference to the idea of being a married person, issues of emotional closeness with the spouse, new activities the couple do or engage in, ways to deal with situations or stressors of daily lives, issues of decision making in day to day activities between the spouses, roles and responsibilities, management of the household and concerns about spouse's personality are reported by at least 50% of the participants in both conjoint as well as individual sessions. These twelve themes are important for conjoint and individual sessions in couples therapy

Table 1 also shows that themes of recreational activities, experience of violence in the marriage and family context and issues related to sexual relationship are reported by at least 50% of the participants in conjoint but not individual sessions whereas the theme one's friend circle and its relation to the couple's interaction is reported by at least 50% of the participants in individual sessions but not in conjoint sessions.

Table 2 shows that goals such as to have in-depth exploration of the core problems, to improve skills to resolve conflicts in the relationship, to speak freely and as much as person wanted, to encourage different ways of looking at the problem, to change one's negative appraisal of an issue or problem to a more realistic one, and to keep the spouses connected or engaged in the therapy sessions, are reported by at least 50% of the participants in both conjoint as well as individual sessions.

Table 2 also shows that the goals to improve communication pattern is reported by at least 50% of the participants in conjoint but not individual sessions whereas goals such as to help decrease emotional difficulties, and to increase focus on self-care were reported by at least 50% of the participants in individual sessions but not in conjoint sessions. The goal to improve communication pattern is nil for individual sessions showing that conjoint sessions are important for this goal.

In Table 1, themes such as difficulties or unwillingness to have a conjoint session, issues of extra- marital affairs,

spirituality and religiosity, and traumatic childhood experiences were reported less frequently (<20%) in both conjoint sessions and individual sessions. Likewise, in Table 2, goals such as to prepare for conjoint sessions, to engage the unwilling spouse in the ongoing therapy sessions, and to seek guidance to terminate the relationship in the best possible way were reported less frequently (<20%) in both conjoint sessions and individual sessions. However, it also shows that none of the percentages are nearing 0 in either of the sessions except for the theme of violence in the society/ neighbourhood or involving police and the goal to improve communication patterns in individual sessions suggesting that all the themes and goals are relevant for couples therapy to a greater or lesser extent.

Table 2: Percentages for Goals in Conjoint and Individual Sessions

Sl No.	Statements	Goals	
		Conjoing session (n=46)	Individual sessions (n=19)
		%	%
1.#	To improve communication/interaction pattern	91.3	00.0
2.	To improve physical intimacy	15.2	21.1
3.*	To improve skills to resolve conflicts in the relationship	65.2	63.2
4.	To empower oneself in the relationship	23.1	31.6
5. #	To increase focus on self-care	32.6	52.6
6.#	To help decrease emotional difficulties	41.3	68.4
7.*	To speak freely and as much as you wanted	56.5	68.4
8.	To prepare for conjoint sessions (couple session)	02.2	15.8
9.*	To keep the spouses connected or engaged in the therapy sessions.	56.0	52.6
10.	To engage the unwilling spouse in the ongoing therapy sessions	02.2	10.5
11.*	To have an in-depth exploration of the core problems.	73.9	84.2
12.*	To change one's negative appraisal of an issue or problem to a more realistic one.	54.3	63.2
13.*	To encourage different ways of looking at the problem.	50.0	73.7
14.*	To seek guidance or advice or suggestions	54.3	73.3
15.	To help in decision making to continue or terminate the relationship	28.3	31.6
16.	To seek guidance to terminate relationship in the best possible way.	06.5	10.5

statements reported by at least 50% of the participants in only one type of sessions
* statements reported by at least 50% of the participants in both types of sessions

When husbands (n=21) and wives (n=21) were compared on themes and goals, statistically significant differences were found on the themes of issues of decision making in day-to-day activities between the spouses ($p<0.01$) and issues of job or employment ($p<0.05$) with husbands reporting them more than the wives in conjoint sessions. No significant differences were found between them on goals.

DISCUSSION

Some themes and goals are common in both individual and conjoint sessions. This indicates that when these themes and

goals arise, a conjoint session can be opted for without the need to integrate an individual session- i.e., conjoint couples therapy could be sufficient in these contexts rather than combined couples therapy. Therapists however, may need to address these competently if he/she offers individual sessions and these themes emerge there.

Commonalities in individual and conjoint sessions:
Themes such as emotional distress and emotional needs in marriage, communication styles, marital history, family of origin, spouse's personality, mutual expectations, therapy goals, self-in-marriage, marital interactions and new initiatives, roles, decision-making, were frequent themes in individual sessions as well as conjoint sessions. The finding highlights that these are common themes couples often discuss in couple therapy (Bodenmann, 2010, Shah et al., 2016). Exploration of intergenerational characteristics is an important concept in the domain of marital and family therapy, and particularly significant in Indian context too as the extended family members still have a huge influence in the couple's choices (DuPree et al., 2013).

Goals such as to have in-depth exploration of the core problems, improve skills to resolve conflicts, to ventilate, to develop flexible and varied perspectives on the presenting issue, and to keep the spouses engaged in the therapy are frequently targeted goals in couple therapy. In-depth exploration helps the therapist have better understanding of the couple's issues and is a mutual expectation from the couples toward the therapists to do the same (Tambling et al. 2014). In this study, a dyadic goal about skills to resolve conflicts was frequently targeted in individual sessions too. Shah & Satyanarayana (2001) indicated the possibility of creating systemic changes in couples through one partner when conjoint sessions are not possible.

Previous studies indicate that individual sessions are opted when ventilation is needed. However, in this study, this goal is targeted frequently in conjoint sessions too. Perhaps choice of the format of the session is guided by the therapist's judgment. If conjoint sessions trigger destructive processes that might de-motivate them from engaging in therapy, individual sessions can be used. However, if the therapist is apprehensive that after ventilation in individual sessions, the partner is not willing to work with the same in conjoint sessions, attempts can be made to create suitable processes in conjoint sessions alone.

Differences in conjoint sessions and individual sessions:
Differences between the two types of sessions are evident on certain other themes and goals. This points towards the importance of integrating the two formats into 'combined couple therapy'.

To improve communication was reported to be a goal targeted by 91.3% of the participants in conjoint sessions. It is also important to highlight the finding that none (00.0%) reported to have it targeted in individual sessions. Communication issue is one of the common target symptoms in conjoint sessions of couple therapy (Shah et al., 2016) for which facilitation for effective communication is needed to enhance understanding between one another. Techniques to improve communication skills include training for listening and speaking skills in the session which requires both the spouses in the session. This finding guides the therapist to plan for a conjoint session when this goal is to be targeted.

Themes such as recreational activities, experience of violence in the marriage and family context, and issues related to sexual relationship were discussed more in conjoint sessions than individual sessions. Exploration on the sexual relationship in the couple is a dyadic theme needing both the couples in the session (Shah et al, 2016). Couples who spend good times with each other's company nurture intimacy between them and enhance relationship (Sandhya, 2009). Therefore, recreational activities might have been discussed more in conjoint sessions to explore the couples' engagement level in joint leisure activities and to prescribe if need be.

Goals such as to increase focus on self-care and to decrease emotional difficulties were reported more in individual sessions. Perhaps self-care through skills for adaptive regulation through individual sessions is essential. Therapists can address these goals collaboratively through individual sessions.

Themes and goals reported less frequently (extra-marital affairs, unwillingness for conjoint sessions, spirituality, traumatic childhood experiences, preparation for conjoint sessions, and termination of relationship) are perhaps relevant to some couples if not all and require therapist's attention. Overall, the list of themes and goals (in Table 1 and 2) are quite relevant for couple therapy across both formats of sessions. Gender-related themes for men (decision-making and employment) discussed in conjoint sessions is another important part of couples therapy.

CONCLUSION

The study shows common themes and goals relevant to conjoint and individual sessions of couples therapy. This can empower beginner therapists to be flexible and pragmatic in combined couples therapy. Results suggest more use of conjoint sessions and integration of individual sessions only when required based on relevant intrapersonal themes. The limitation of the study was that there is wide age range among the participants of the present study. Due to small sample size, specific analysis of themes and goals for different age groups could not be carried out. This limits generalizability of the findings. Further research on the nature of themes and goals using smaller age range, homogenous sample, presenting problems, level of marital distress and stage of therapy can provide useful insights for couple therapists.

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Mental Health Awareness in Arunachal Pradesh: A Study on Rural Community of Lohit and Lower Dibang Valley

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ABSTRACT

Mental health is an integral part of health and plays a major role in our overall well being. However, mental health related topics are considered a taboo and discussion about it is avoided to a large extent in our country. Awareness about mental health will help remove social stigma related to mental health problems and disorders and promote positive mental health in the community.

Aims/Objectives: It is in this light the present research was conducted to study the level of awareness of mental health among the people of Arunachal Pradesh, specifically the two neighboring districts in Eastern zone of Arunachal Pradesh viz. Lohit and Lower Dibang Valley.

Method: The sample consisted of 100 respondents and they were from age group between 20 to 59 years. Data was collected through convenience sampling method during the free medical camps "Sarkaar Aapke Dwaar" held in various villages of the two districts.

Results: Findings showed that majority of the people in Arunachal Pradesh have higher level of awareness towards mental health (84%). Though the male population showed higher level of awareness compared to females, there was no significant gender difference. However, females were found to have more knowledge about mental health compared to males. Study found high level of knowledge and positive beliefs but reported negative actions towards mental health. Lower the educational attainment lesser the reported suitable action towards mental health behavior. The findings have important implications in the field of mental health, specifically analyzing in terms of the knowledge, beliefs and action components of mental health.

Keywords: *Mental health, Mental health awareness, Rural community, Arunachal Pradesh*

INTRODUCTION

Arunachal Pradesh is located in the north-eastern-most part of India. The state borders the states of Assam and Nagaland to the south and shares international borders with Bhutan in the west, Myanmar in the east and is separated from China in the north by the McMahon Line. It is the largest state among all the other North-Eastern India lying roughly between the latitudes 26°28' N and 29°30' N and the longitudes 91°30' E and 97°30' E. Arunachal Pradesh is divided into two zones i.e. East & West and have twenty-five districts at present.

World Health Organization says, "Without mental health there can be no true physical health" (WHO, 2018). It was reported that person with mental illness may experience uncomfortable social interactions, limited social networks, a deprived quality of life, low self-esteem, depressive symptoms, and loss of revenue due to inability of finding appropriate work (Link & Phelan, 2006). In the same theory it was stated, the fright of being labeled with any mental disease causes the person to avoid or either delay the treatment, while those already labeled start isolating themselves and become non compliant. In line with previous research it was found that lower the education, higher the level of stigma on mental illness (Zieger, et al., 2016). Women from Nigeria were afraid to have a dialogue with someone who was known to suffer from mental disorders (Gureje, Lasebikan, Oluwanuga, & Olley, 2005). One in seven Indians was suffering from some form of mental disorders of varying severity in 2017 and the proportional contribution of mental disorders to the total disease burden in India has almost doubled since 1990 (Sagar, et al., 2020). A study by Avasthi (2011) reported that women in India thought that mental illness are family affairs and should not be shared with other people. It is assumed that people from rural area would be more stigmatized and discriminated about mental illness but it has been seen that stigma is higher in Assam urban society compared to rural society, older age and males. Acceptance for the mental illness was more positive in Assam rural settings, younger age and females (Borooah & Ghosh, 2017). The National mental health survey conducted by NIMHANS in 2016 showed the prevalence of mental health issues in 12 states of India. Manipur ranked first with a 14.1 percent closely followed by Madhya Pradesh (Gururaj, et al., 2016). The state of Arunachal Pradesh did not find any mention in the above discussed survey.

The topic of mental illness is still a taboo and discussion about it is avoided to a large extent in our country. This is also the case in the State of Arunachal Pradesh. Any type of psychological disorder is considered as possessed by evil spirits or black magic. These superstitious beliefs prevent the family of the patient from seeking medical help thereby worsening the condition of the affected individual. Superstitions, lack of awareness about mental health issues and minimal intervention from government in the tribal population living in remote areas are the reason for negative attitude towards mental illness (Alee, Hasan, & Aijaz, 2018).

It is a known fact that there lies a negative concept towards mental illness in the society. But with recent advancement in the field of mental health there are chances of some

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positive highlights as well. In a study of the knowledge and attitudes toward mental illness in key informants and general population, it was revealed that the awareness about mental illness in general population is on the increase and the public are more sympathetic of the person with mental illness (Kumar, Kumar, Singh & Bhandari, 2012). Urban population are more familiar and have optimistic outlook toward mental illness as compared to rural population (Vijay, Jadhav, Puranik, Shinde, & Pakhale, 2012). A study revealed that in Qatar, compared to women, men have better knowledge, beliefs, and attitudes about mental illness (Bener & Ghuloam, 2011). Young adults reported to have more positive attitude and beliefs towards people with mental health problems (Collins, Roth, Cerully, & Wong, 2014). Younger generation and residents from rural population tended to show more positive attitude towards mental disorders. It was also reported that people with higher education had higher mental health knowledge (Juan, Meng Meng, Lin, Wen, Jun, & Zhao, 2018)

In Arunachal Pradesh with only one mental health centre functional and countable trained mental health professionals, lies huge amount of treatment gap. No research has been carried out in trying to understand the state's stand on mental health services. The attached stigma regarding mental health related problems are still very prevalent in the population. Low perceived need for care, paucity of knowledge on mental health related problems, and stigma attached to mental disorders are considered as demand-side barriers that need to be addressed for positive growth in the field of mental health services (Patel, Saxena, Lund, Thornicroft, Baingana, & Bolton, 2018).

Rationale of the study

There are a large number of research works on mental health in the country acknowledging the importance of metal health. But little is contributed to it from the state Arunachal Pradesh in north eastern part of India as there is no research work to that effect as yet. Positive mental health can be promoted only when the public or community are aware about the mental health related problems and have positive attitudes toward mental illness and people suffering from mental illness. Evaluation of awareness about mental illness in the general public will aid in the understanding, recognition, prevention and management in the field of mental health. Understanding the level of awareness among people towards mental illness is important for the implementation of public sensitization concerning mental illness. The present study on examining the awareness about mental health in the public would bring to light the existing knowledge, beliefs and actions toward mental health and people suffering with mental illness in Arunachal Pradesh.

The objectives for present study are as follows:

1. To study the awareness level regarding mental health among people in the rural community of Lohit and Lower Dibang Valley of Arunachal Pradesh.
2. To examine the level of knowledge, belief and action towards mental health among people in the rural community of Lohit and Lower Dibang Valley of Arunachal Pradesh
3. To study differences on mental health awareness in respect of age among people in the rural community of Lohit and Lower Dibang Valley of Arunachal Pradesh.
4. To study differences on mental health awareness in respect of educational qualification among people in the rural community of Lohit and Lower Dibang Valley of Arunachal Pradesh.
5. To study the gender difference on mental health awareness among people in the rural community of Lohit and Lower Dibang Valley of Arunachal Pradesh.

METHOD

Sample

Arunachal Pradesh is a state of 1.73 million and the state is divided into 25 districts. The participants were recruited from neighbouring districts Lohit and Lower Dibang Valley. The study location was selected because of the feasibility of the researcher and also the districts are reflective of typical rural demography of the state. The sample comprises of 100 participants aged between 20 to above 50 years of age using convenient sampling method during the free medical camps "Sarkaar Aapke Dwaar" (Government at your doorstep) held in various villages of the districts. The programme is an initiative of the State government to resolve public grievances on the spot free of cost. Willing participants were requested to fill up the questionnaire and for those who were illiterate the researcher helped them in translating the questions in local dialect.

Tool

A semi-structured questionnaire was designed to evaluate the knowledge, beliefs and actions of the participants towards mental health. The questionnaire first included basic demographic data of the participants (age, gender and level of education).The questionnaire was adapted from the scale Mental Health Knowledge Questionnaire (MHKQ), which was developed to assess the knowledge and awareness towards mental health by the Chinese Ministry of Health (MOH) in 2009. The MHKQ consist of 20 self-administered questions. The adapted questionnaire was given to two experts in the field of psychology for suggestions and comments for improvement and accordingly the questionnaire was modified.

The present questionnaire "Knowledge, Beliefs and Action on Mental Health" (KBA-MH) consists of a total of 29 questions, 11 questions related to Knowledge component, 9 questions related to Belief component and 9 questions related to Action component of mental health. A participant can score from 0 to 29; the higher the score, the greater the awareness on mental health. Further, the higher the score in each component of mental health, the better is the individual's knowledge, belief and action respectively towards mental health. The cronbach's coefficient of KBA-MH is reported to be 0.735.

RESULTS AND DISCUSSION

In the present study the objective was to study the level of mental health awareness among the people of Arunachal Pradesh in Lohit and Lower Dibang Valley districts. The differences on mental health awareness in respect to age,

gender and educational qualification were also examined. Under mental health the three components i.e., level of knowledge, belief and action towards mental health were also examined. To explore basic socio-demographic data, descriptive statistics was used. The obtained scores from KBA-MH were then compared among sample subgroups, created according to demographic characteristics of gender, age and education, using t-test and one-way analysis of variance.

A total of 100 participants (47 males and 53 females) were included in the survey. Maximum participants were from age range 40-49 years (41%) and lowest were from 20-29 years (8%). With respect to educational qualification, most of the participants were illiterate (35%), secondary school or less were 33%, up to higher secondary level were 10% and graduates and above were 22%.

Level of Mental Health Awareness

It can be seen from Table 1 that most of the participants had higher awareness level towards mental health (84%). Among them males (87.2%) had higher level of awareness on mental health compared to females (79.2%). 20-29 years of age and 50-59 years of age have 100% level of awareness towards mental health compared to other two age group. Above graduates and upto higher secondary school was 100% aware about mental health.

Table 1: Socio-demographic characteristics of the sample and their level of awareness towards mental health. (N=100)

Variables	Number of samples (n)	Percentage	Higher awareness on mental health		Lower awareness on mental health	
			n	%	n	%
Gender	Male (47)	47%	41	87.2	6	12.5
	Female (53)	53%	42	79.2	11	20.7
Age (in years)	20-29 years (8)	8%	8	100	0	0
	30-39 years (21)	21%	20	95.2	1	4.76
	40-49 years (41)	41%	36	87.8	4	9.7
	50-59 years (20)	20%	20	100	0	0
Education	Illiterate (35)	35%	22	62.85	13	37.14
	Sec school or less (33)	33%	31	93.9	2	6.06
	Higher Sec school (10)	10%	10	100	0	0
	Graduate (22)	22%	22	100	0	0

Level of Knowledge, Belief and Action towards Mental Health among People

As can be seen in Table 2, 98% of samples with higher level of knowledge about mental health comprise 52% females and 48% males. Most of people (58%) have positive belief towards mental health including equal number of females and males. While only 42% showed negative belief towards mental health. But the negative action towards mental health is maximum (73%) comprising 52% females and 48% males of the sample.

With regard to age group distribution in the study, Table 3 reveals that age group 20-29 years and 30-39 years have cent percent higher level of knowledge towards mental health. In the age group 30-39yrs,93.2% had positive belief and 50-59yrs had 50%. The age group of 50-59 years have higher percent of positive action (60%), whereas rest of the age group have higher percent of negative action towards mental health, 87.5% for 20-29 years, 90.4% for 30-39 years and 78% for 40-49years.

Table 2: Gender wise frequency distribution for level of knowledge, belief and action towards mental health (N=100)

Mental Health Awareness Variables		Count			Count%		
		Total	Male	Female	Total	Male	Female
Knowledge	Higher	98	47	51	98%	48%	52%
	Lower	2	0	2	2%	0	100%
Belief	Positive	58	29	29	58%	50%	50%
	Negative	42	18	24	42%	42.8%	57.2%
Action	Positive	27	12	15	27%	44.4%	55.6%
	Negative	73	35	38	73%	48%	52%

Table 3: Age group frequency distribution for level of knowledge, belief and action towards mental health (N=100)

Age group in years (n)	Higher knowledge		Lower knowledge		Positive belief		Negative belief		Positive action		Negative action	
	n	%	n	%	n	%	n	%	n	%	n	%
20-29 (8)	8	100	0	0	7	87.5	1	12.5	1	12.5	7	87.5
30-39 (21)	21	100	0	0	20	95.2	1	4.8	2	9.6	19	90.4
40-49 (41)	40	97.6	1	2.4	25	60.9	16	39.1	9	22	32	78
50-59 (30)	29	96.7	1	3.3	15	50	15	50	16	60	12	40

Table 4: Education wise frequency distribution for level of knowledge, belief and action towards mental health (N=100)

Education	Higher knowledge		Lower knowledge		Positive Belief		Negative Belief		Positive Action		Negative Action	
	n	%	n	%	n	%	n	%	n	%	n	%
Illiterate (35)	33	94.3	2	5.7	9	25.7	26	74.3	2	5.7	33	94.3
Sec school or less (33)	33	100	0	0	14	42.4	19	57.6	4	12.1	29	87.9
Higher Sec school (10)	10	100	0	0	9	90	1	10	7	70	3	30
Graduate (22)	22	100	0	0	22	100	0	0	14	63.6	8	36.4

With regard to educational qualification (Table 4), the level of knowledge is 100% each for secondary school or less, up

to higher secondary and graduates. Respondents of both illiterates and secondary school or less show negative level of belief (74.3% of illiterates, 57.6% of secondary school or less) and action (94.3% of illiterates and 87.9% of secondary school or less) towards mental health. Graduates shows 100% for both higher level of knowledge and positive belief towards mental health but only 63.6% are engaged in positive action towards mental health.

Mental Health Awareness with regard to the Demographic variables

Table 5 indicates the mathematical means and standard deviations for the mental health awareness according to the age variable (20-29 years, 30-39 years, 40-49years and 50-59 years) and education variable (illiterate, sec school or less, higher sec school and graduate and above). Results show that there are some differences in the mathematical means of the level of mental health awareness in the study sample with respect to the age and education variable. To ensure that these differences were statistically significant, a one-way ANOVA analysis test was done (Table 6).

Table 5: Mean and SD for mental health awareness according to age and education variables

Scale	Variables	N	Mean	SD
Mental Health Awareness	***Age group***			
	20-29 years	8	24.50	3.162
	30-39 years	21	23.10	3.687
	40-49 years	41	20.29	4.440
	50-69 years	30	18.17	4.639
Mental Health Awareness	***Education***			
	Illiterate	35	16.51	3.768
	Sec school or less	33	20.45	3.202
	Higher sec school	10	24.80	2.394
	Graduates and above	22	25.32	1.887

Table 6: One-Way ANOVA for mental health awareness in relation with age and education variables.

Variable	Category		Sum of square	df	Mean square	F	p
Mental Health Awareness	Age	Between group	433.896	3	144.632	7.914	.000
		Within group	1754.464	96	18.276		
		Total	2188.360	99			
	Education	Between group	1251.663	3	417.712	42.712	.000
		Within group	937.297	96	9.764		
		Total	2188.36	99			

*p<0.05

Result in One-Way ANOVA shows that the effect of age on mental health awareness was significant at 0.001 level, $F(3, 96)=7.914$, p=.000. The test result also shows that effect of education on mental health awareness was significant at 0.001 level, $F(3, 96) = 42.712$, p=.000.

Gender difference in mental health awareness

Table 7 illustrates the statistical average and standard deviation for the mental health awareness according to the gender variable (male, female) and the t-test for it.Mean and standard deviation for male is (21.49 ± 4.629) and female is (19.77 ± 4.660). The t-value and sig-value for male and female as per the t-test is male (1.84, 0.068) and females (1.84, 0.068). In both the cases significant value is greater than 0.05, which means there is no gender difference in mental health awareness.

Table7: t-test for mental health awareness based on gender

Scale	Gender	N	Mean	SD	df	t	sig.
(Mental Health Awareness)	Male	47	21.49	4.629	98	1.843	0.068
	Female	53	19.77	4.660	98	1.844	0.068

DISCUSSION

The study is significant in the sense that there has been very less emphasis and almost no study in the field of mental health awareness in Arunachal Pradesh to the best of knowledge of the researchers. Thus the study aiming at finding the level of mental health awareness of people is an important step forward and contributes to the field. Though the study sample is not the representative of the entire population of Arunachal Pradesh, it can provide valuable amount of information related to the awareness towards mental health condition of people in Arunachal Pradesh. Findings indicate that significant number of people (84%) in the State has higher level of awareness towards mental health; this could be because of public education and sensitization about mental illness awareness program conducted by District Mental Health Program (DMHP) in the districts. The influence of social media in modern technology society can also be a factor. Another possible explanation could be that rural community may possibly be extra tolerant of bizarre behavior or more sympathetic of people with mental disorders (Juan, Meng Meng, Lin, Wen, Jun, & Zhao, 2018). The present study has been conducted on people from rural communities in Arunachal Pradesh.

Finding reported that most of the respondents in the study have positive knowledge and belief towards mental health but they do not engage in suitable positive action towards their mental health (73%). Females (52%) reported to be more knowledgeable on mental health as compared to males. Borooah and Ghosh (2017) have reported similar findings where they found rural setting had more acceptance and lower stigma and discrimination than urban settings and that females were more accepting and have higher knowledge towards the issues of mental illness compared to males in Central Assam.

The younger age group has positive knowledge and belief towards mental health compared to older age group. Similar findings reported by Pomidor (2016) points that since mental health awareness was never the part of the discussion earlier that is why elder generation is not much aware about such problems. Borooah and Ghosh (2017) had stated in their study at Central Assam that stigma and discrimination is higher in older age group. A significant

finding reveals that though older age group has lower knowledge and belief towards mental health, most of them engage in positive action. This can be attributed to response bias during the survey or customs and social life of tribal rural society which can be considered for another area of research interest.

Findings also indicate that education is directly proportionate to mental health awareness in selected rural district of Arunachal Pradesh. In a similar study it was found that with higher educational attainment there was a lower perceived stigma on mental illness in the cities of India (Zieger, et al., 2016). In terms of educational qualification, the graduates and above group with 100% positive knowledge and belief towards mental health, only 60% are engaged in positive action towards their mental health which is a matter of concern.

The findings on the level of mental health awareness in relation to age and educational qualification the results for age F-value is 7.9 and sig-value is 0.00 and for education F-value is 42.71 and sig-value is 0.00. In both the cases results are significant because probability value is less than 0.05 for age and education. Hence it can be inferred that there is an influence of age and educational qualification on the mental health awareness among people in Arunachal Pradesh. However, there was no significant gender difference in mental health awareness.

CONCLUSION

Overall, the study findings reflected a higher level of knowledge regarding mental health, however, an average level in beliefs component and low level with regard to action component of mental health awareness. Similar pattern was depicted for all the demographic variables. Higher education reported a corresponding increase in the action component of mental health, but it does not match with the increase in their knowledge and belief components. The study thus has important implications for the mental health awareness campaigns, programmes and policies. More importantly, the specific components of knowledge, beliefs and action can be highlighted in future studies by taking larger sample combined with a qualitative approach also. Further, the findings will be useful for the researchers interested in study of mental health of rural tribal communities in Arunachal Pradesh and other part of North East India.

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Gender Role Perception and Estimation of Self-Worth among Married and Unmarried Women

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ABSTRACT

The study was carried out to examine the self-worth among women in relation to their marriage and gender role perception. Femininity ratio of 300 married and 300 unmarried women between 25 and 35 years of age were calculated using Sahoo's Sex Role Inventory (SSRI). Sixty women of each group having higher femininity ratio were selected as married and unmarried sex-typed and having lower femininity ratio as married and unmarried androgyny. The study followed a 2 X 2 factorial design. Besides SSRI, Sahoo's Health Behavior Questionnaire was administered on the participants to measure four attributes of self-worth namely; Sense of achievement, Autonomy, Competence, and Trust. Results of ANOVA with respect to each dependent measure complied with the finding of prior studies that androgynies are better in sense of achievement, autonomy, and competence both among married and unmarried women. On the other hand, marriage had negative impacts on these attributes of self-worth for both androgyny and sex-typed women. However, the sense of trust was found best among sex-typed married women and least among sex-typed unmarried women while it was reverse among androgyny women. The above finding points to the fact that trust, the edifice of marriage in Indian culture, is negatively influenced by the marriage of androgynies, which may be the cause of disturbance in many families at present. This may be considered as a cultural implication of the study, and may be used as a perspective in helping marital and family relationships. Further, as androgyny promotes better self-worth among women, cultural practices need to be promoted to help girls to become more androgyny.

Keywords: *Androgyny, Sex-Typed, Self-Worth, Autonomy, Trust*

INTRODUCTION

Women suffer from depression more often compared to men (e.g., Bromet et al., 2011; Ferrari et al., 2013; Rachel et al., 2017). Some of the hypotheses explained this disproportion to biological factors (e.g., O'Hara & Swain, 1996; Gorden et al., 2014; Kendler et al., 2014), while others emphasized a greater extent to social and psychological variables (e.g., Boughton & Street, 2007). However, in recent research literature, gender role perception describing men and women into a dichotomy of masculinity and femininity has been reported as a major source in understanding the issues of mental health among women (Emily et al., 2006; Martin et al., 2017). Here, it is actually important to understand the term sex and its relation to the term gender. In fact, 'gender' refers to the distinction between men and women that is a totality of biological, cultural, historical, psychological, and social consequences. Gender is not just a man versus woman; it is a question of integration of masculinity and femininity (Ryle, 2011).

The masculinity and femininity research during 1970sbrought out a new concept called 'androgyny' that men and women could possess similar characteristics. An androgynous person is one who has both high masculine and feminine characteristics in balance (Bem, 1974). Opposite of androgyny is termed as sex-typed. A sex-typed woman is considered as one who has many feminine characteristics having a proportionately higher-level femininity, whereas a sex-typed man is one having a proportionately higher level of masculinity (Bem, 1981a). Bem's Sex Role Inventory (1974) was developed to measure masculinity and femininity and subsequently facilitated empirical research on the psychology of androgyny. In view of such facts, the present research was proposed to understand the link between androgyny and estimation of self-worth among women belonging to a specific culture.

Adherence to feminine traits by girls is strongly reinforced in the child-rearing practices not only in Indian society (Sahoo, 2004) but also in several countries of the world. Some researchers have questioned the efficacy of these practices by pointing to the fact that healthy men and women have some common attributes in their gender orientation and without these orientations, their mental health is at risk (e.g., Boughton et al., 2007; Hankin et al., 2007). In fact, many of those studies have reported that androgyny is related to positive mental health (e.g., Gillbert, 1981; Kravetz & Jones, 1981; Prakash et al., 2010; Huang et al., 2010; Pauletti et al., 2017). Hence, the present research was carried out with the objective to examine the differences in health behaviour, particularly in understanding the self-worth, between androgyny and sex-typed married and unmarried women. Although the objective of this study is not something new, its importance lies in the socio-cultural set up where the study was conducted. The socio-cultural setting, of the study represents a traditional rural culture particularly with respect to socialization and child-rearing practices for girls (Sahoo, 2004). The girls in this culture are strongly reinforced for their feminine behaviour and outlook and masculinity in any form among them is seriously looked down upon and is even punished (Sahoo, 2004). The present study, therefore, is an attempt to test the androgyny hypothesis in a traditional rural cross-cultural perspective. To provide the background for the objectives and rationale of the study, following studies which examined the link between androgyny and mental health are discussed.

Gilbert (1981), in one of the pioneering research about the mental health of androgyny, reported that androgynies have

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a high degree of instrumental and expressive qualities towards better mental health compared to their sex-typed counterparts. He has also reported that androgynies have better personality and behavioural correlates which constitute a healthy personal value system.

Kravetz and Jones (1981) in another pioneering study reported that androgynies have a strong clinical standard of mental health compared to their sex-typed counterparts. They have even suggested that mental health professionals need to hold either an androgynous or masculine standard of mental health for both men and women.

Bernard and Whitley (1985) carried out a meta-analysis of 32 studies examining the mental health and psychological wellbeing among three groups of subjects. In the first group, people have sex-role orientation congruent with their gender; the second is the androgyny group whose sex-role orientation has high degree of both masculinity and femininity; and people in the third group have high degree of masculinity. The results meta-analysis provided the best support for both androgyny model and masculinity model that people in both these groups have better mental health and psychological wellbeing compared to the congruent group.

Thornton and Leo (1992) studied the mental health concern of middle-class Caucasian women as feminine type, undifferentiated and androgynies. Their results reported that feminine-typed and undifferentiated women displayed greater depression and anxiety compared to androgynous women. They have also observed that gender-typed women striving to excel across multiple roles are engaged in greater substance abuse than androgynous women. Their findings also suggested that lack of gender typing for women enable them to cope more effectively with conflicting demands of multiple roles and thereby reduce certain health risk behaviours.

Emily et al., (2006) predicting optimal mental health as related to masculinity and femininity reported that androgyny consisting of high levels of both masculinity and femininity are associated with higher level of mental health. The findings of the study provided a strong support to the additive androgyny hypothesis which proposed that individuals who are high in both masculinity and femininity will enjoy greater psychological wellbeing than those who are low in either of it.

Prakash et al., (2010) have reported that androgynies have a strong psychoprotective attribute to help them defend against psychopathology, depression, anxiety, and perceived stress. Correlation analyses in their study revealed that people with higher femininity tend to have more psychopathology, get more depressed and anxious, and have increased perception of stress. On the other hand, masculinity is associated with better mental health and coping and increased amount of femininity among women made them vulnerable to manifesting stress and psychopathology. They have concluded in the study that androgyny is strongly psychoprotective and empowerment-oriented; psychological approaches to encourage androgyny among women, can be highly therapeutic for their mental health.

Malamidis (2011) examined the relationship between androgyny and depression in the context of two different cultures (Greece and Great Britain). He reported that in both these cultures, women with higher level of androgyny are least susceptible to symptoms in Beck's depression inventory. Even some of those women demonstrated strong resilience in the face of high adversities in life.

Szpitalak and Prochwicz (2013) pointed out that factors connected with women's gender role could create a higher risk of depression. Their sample included three groups of patients suffering from affective disorder: a group with low level of both masculinity and femininity called undifferentiated; an androgynous group and a sex-typed group. The results of their study indicated that there is a significant connection between the type of psychological gender and the level of depression. The highest level of depression was shown by undifferentiated patients, femininity was also found to be associated with a great number of depressive symptoms. These findings also pointed out that androgynous individuals and patients with a high level of masculinity tend to be less depressed.

Nikolaev et al. (2017) studied the mental health and subjective wellbeing of 117 androgynous dentists. The results revealed that regardless of their sex, dentists high in androgynous characteristics have higher level of mental health, greater self-estimation of health, subjective well being, satisfaction with the material status and success motivation.

The above discussions about some of the pioneering and landmark studies relating androgyny and to mental health clearly pointed to the fact that androgynies have a strong psychoprotective attribute which help them to defend against mental disorders and maintain good mental health. The present research was carried out on married and unmarried androgynies and sex-typed because in the Indian context marriage is considered to be an institution strongly favoring the sex-typed women than the androgynies. Hence, it is very likely that the institution of marriage would have profound impact on the mental health of women in regard to their gender role orientation. Hence, involving the married and unmarried groups in the study would help to examine the mediating or moderating influence of marriage in the mental health and wellbeing process of the women. Arising from the above needs, the following objectives and hypotheses were formulated for the study.

Objectives

(i) To examine the nature of masculinity and femininity among the women of the selected culture group.

(ii) To examine the differences in self-worth estimates of married and unmarried androgyny and sex-typed women.

(iii) To examine the mediating effects of the institution of the marriage on the self-worth estimates of the four groups.

METHOD OF STUDY

Sample and Design. The study followed a 2 (Marriage: married and unmarried) X 2 (Gender role perception: androgyny and sex-typed) factorial research design and

quota sampling was used to select the participants for each of the four groups. First of all, 600 participants in the age of 25 to 35 years consisting of 300 married and 300 unmarried women were contacted from different villages of Odisha through some postgraduate students of psychology. The criteria for selection of participants were that: (i) they should have minimum graduate qualification; (ii) they should belong to middle socio-economic families as indicated by their family income of more than 30 thousand rupees per month and (iii) the married group should have at least 3 years of marriage. Informed consents were obtained from each of the participants to take part in the study. Initially, Sahoo's Sex Role Inventory (Sahoo, 2004) was administered on each of the participants through their respective student contacts. The femininity ratio (described in the tools) of each participant was calculated. Then, femininity ratio of the married and unmarried group was separately arranged in descending orders. The top 60 women in the list of the married group were identified as married sex-typed and the bottom 60 women in the list were identified as married androgyny. Likewise, the top 60 women among the unmarried group were named as unmarried sex-typed and bottom 60 women were named as unmarried androgyny. The rest 360 women were excluded from further study after properly communicating the authors' obligation to them.

The study was carried out in different parts of Odisha and 12 post-graduate students of psychology were trained to collect the data from their own native places during vacation. Each student was given adequate training to collect data in both the questionnaires. Initially, each of them collected 50 data using SSRI. Then they were assigned to collect data on the Health Behavior Questionnaire from as many subjects as were selected in the final group from among the initial 50 women. The data were collected individually by providing printed copies of the questionnaires to each of participants. Students who were appropriately remunerated for their work personally visited each participant and collected the data.

Sample Design

Marital Status → / Gender Role Perception ↓	Married	Unmarried
Androgyny	60	60
Sex-typed	60	60
Total	120	120

Tool (i) SSRI. Sahoo Sex Role Inventory (Sahoo, 2004) was used to measure the masculinity and femininity of the participants. The scale consisting of 50 items included 20 items for masculinity, 20 items for femininity, and 10-filler items. Each item was rated by the respondents on a 7-point scale resulting in a maximum score of 140 in each of the masculine and feminine trait. The feminine ratio of a subject was calculated as the ratio of her feminine score to her masculine score.

Tool (ii) HBQ. The second instrument used in the study was the Part II of Health Behavior Questionnaire (Sahoo, 2004) which consisted of 120 questions to evaluate 15 relevant constructs of health behavior. Each item is to be responded by a subject on a 6-pont scale. Although, the whole scale was administered on each of the subjects, only four behavioral attributes related to estimation of self-worth are examined in the present study. Those attributes are (i) Sense of achievement (8 items), (ii) sense of autonomy (8 items), (iii) sense of competence (10 items), and (iv) sense of trust (8 items). In the scale, these attributes are identified as estimates of self-worth of the subjects.

RESULTS

Personal data of the participants were collected to report on the descriptive sample characteristics and the results presented in Table 1. With regard to age of the participants in the four groups, one-way ANOVA was computed and the F-value is not significant pointing to the fact that the four groups do not have significant differences with regard to their age. The ranges of income for the groups were not also much different and all the participants belong to middle socio-economic families. Finally, with regard to educational qualification, most of the participants were graduates and few of them are postgraduates. Chi-square computed among the four groups is not significant to point out that the groups also do not differ with regard to their qualifications. Hence, the four groups are similar in respect of important socio-demographic variables.

The feminine ratio was calculated for each of the 600 subjects as the ratio of their score in femininity to that of masculinity. The value of the ratio ranged between 0.88 (feminine score 84 and masculine score 96) and 5.42 (feminine score 103 & masculine score 19). The feminine ratios of the subjects were arranged in descending order separately for each of the married and unmarried groups. The top 60 women in each group were taken as sex-typed and the bottom 60 as androgyny. The means and SDs of feminine ratio for the four groups are reported in Table 2. The means of Married Androgyny group is 1.56 as against 1.08 of the Unmarried Androgyny group. Similarly, the means of the Married Sex-type group is 3.95 as against 3.39 of Unmarried Sex-type group. In order to find out the independence of the four groups in the androgyny measure, two-way ANOVA was calculated on their feminine ratio score and results are reported in Table 3. The results pointed out that the main effects of both marriage and gender role perception including the interaction effect are significant which clearly pointed to the fact that with respect to feminine ratio, the four groups of samples in our study are different. Hence, methodologically we can use these samples to study the health behavior diversities among the androgyny and sex-typed groups. Further, t-tests were also computed between married and unmarried androgyny and married and unmarried sex-typed and the values are reported in Table 2. Both the t-values are significant to point out that with regard to gender role perception, married and unmarried groups are significantly different suggesting that marriage has some mediating role in changing gender role

perception among both androgyny and sex-typed. Androgynies become more androgynous after marriage and sex-typed become more sex-typed after marriage.

In the next part, the study examined group differences in the four self-worth estimates of the subjects. The means and SDs for each of the measures are reported in Table 4 and the results of AONVA including Tukey's HSD test are presented in Table 4. Tukey's test was carried out to avail all possible pair-wise comparisons of groups in respect of each of the dependent measure. To bring out the visual effect of the group comparisons in terms of interaction of factors, four graphs relating the group means of the attributes are presented as Figures 1, 2, 3, and 4.

Table 1: Descriptive sample characteristics

Participant Group		Age	Family Income Range	Education	
				Graduates	Post Graduates
Married Sex-typed	Mean	28.54	Rs.30 to 38 thousand	57	3
	SD	3.97			
Married Androgyny	Mean	29.37	Rs.32 to 35 thousand	53	7
	SD	3.18			
Unmarried Sex-typed	Mean	27.49	Rs.30 to 38 thousand	53	7
	SD	3.09			
Unmarried Androgyny	Mean	27.86	Rs.32 to 36 thousand	50	10
	SD	3.21			
Reported statistics	F=3.59 (NS)		Chi-square=4.77 (NS)		
	df= 3/236		(df=3)		

Table 2: The means and Standard deviations of the feminine ratio for married and unmarried androgyny and sex-typed groups

Groups	Androgyny		Sex-type	
	Mean	SD	Mean	SD
Married	1.56	0.98	3.95	1.10
Unmarried	1.08	0.91	3.39	1.07
t-value	2.78, (df=118, p<.01)		2.83 (df=118, p<.01)	

Table 3: Summary of Analysis of Variance Showing the group differences in feminine ratio of married and unmarried androgyny and sex-typed groups. (N=60 in each cell)

Sources	**SS**	**df**	**MS**	**F**
Marriage (A)	129.31	1	30.88	124.34**
Gender perception (B)	210.14	1	210.14	202.05**
A X B	10.98	1	10.98	10.56**
Within Group	244.46	236	1.04	

Note:- **= p<.01, *= p<.05

As observed in Table 4, both married and unmarried androgynies have higher means than their counterparts among sex-typed in Sense of Achievement. The results of ANOVA (Table 5) showed that the main effects of marriage and gender role perception including the interaction effect are all significant. Results of the Tukey's HSD test pointed out that each of six group comparisons are significant. Hence, it may be concluded that unmarried androgynies have the best sense of achievement followed by unmarried sex-type, and then by married androgynies. The married sex-typed have least sense of achievement. Here, it may be pointed out that in the traditional Indian culture, marriage is a factor in diminishing the sense of achievement among women and at the same time androgyny is a positively contributing factor to the sense of achievement among them. Further, the interaction between marriage and gender role perception is ordinal (Figure 1) to suggest that observed main effects are appropriately interpreted.

Now, in respect of Autonomy, the highest mean is also found about unmarried androgyny, followed by unmarried sex-type, and then by married androgyny (Table 4). On the other hand, autonomy of the married sex-type is found to be very low. The results of ANOVA also pointed to the significance of both main effects and of the interaction effect (Table 5). Further, Tukey's HSD results for five of the six group comparisons are found significant, and significant difference was not observed between unmarried androgyny and unmarried sex-typed. Hence, the conclusions derived from the results are (i) androgynies have better sense of autonomy than the sex-typed even when it is interrupted by their marriage. However, marriage interferes the sense of autonomy among women for both androgyny and sex-typed. There is ordinal interaction (Figure 2) between marriage and gender role perception and hence, the above main effects are right and genuine.

Table 4: Means and Standard Deviations of Sense of Achievement, Autonomy, and Competence as Health Behavior among Androgyny and Sex-typed Groups

Health Behavior Variables		Married		Unmarried	
		Andro-gyny(1)	Sex-typed(2)	Andro-gyny(3)	Sex-typed(4)
Sense of Achievement	Mean	30.23	26.47	34.83	32.28
	SD	3.97	4.43	4.29	3.87
Autonomy	Mean	29.86	24.11	34.38	33.12
	SD	4.35	3.61	3.83	2.97
Competence	Mean	35.77	26.19	38.36	36.84
	SD	4.49	4.11	5.36	4.17
Trust	Mean	28.34	32.19	30.37	24.83
	SD	3.36	4.57	3.18	3.94

Then the attribute of competence as a measure of self-worth was analyzed. The observation of the means (Table 4) also pointed to the same trend that unmarried androgynies have highest sense of competence followed by unmarried sex-type, and then by married androgyny and finally of married sex-type. The results of ANOVA (Table 5) also pointed to the significance of main effects of both marriage and gender role perception including the interaction effect. However, five of the six Tukey's HSD group comparisons are

significant excepting between unmarried androgyny and sex-typed. Hence, the conclusions are (i) marriage interferes with the competence of androgyny and sex-typed women, (ii) partialling out the effect of marriage; androgynies have better sense of competence than the sex-typed. There is also ordinal interaction (Figure 3) between marriage and gender role perception and hence, the above main effects are genuine and interpretable.

Table 5: Summary of Analysis of Variance Showing the Effects of Marriage (A) and Gender Perception (B) on Sense of Achievement, Autonomy, and Competence (N=60 in each cell*)*

Sources	SS	df	MS	F
Sense of Achievement				
Marriage(A)	308.39	1	308.39	17.94**
Gender Perception(B)	341.22	1	341.22	19.85**
A X B	128.06	1	128.06	7.45**
Within Group	4057.24	236	17.19	
Tukey HSD Post-hoc Test.	1vs 2**	1 vs 3**	1vs 4**	2 vs 3**	2 vs 4**	3vs.4**
Autonomy				
Marriage(A)	380.32	1	380.32	27.44**
Gender Perception(B)	225.23	1	225.23	16.25**
A X B	163.96	1	163.96	11.83**
Within Group	3271.22	236	13.86	
Tukey HSD Post-hoc Test.	1vs 2**	1 vs 3**	1vs 4**	2 vs 3**	2 vs 4**	3vs.4
Competence				
Marriage(A)	360.50	1	360.50	17.34**
Gender Perception(B)	481.91	1	481.91	23.18**
A X B	113.72	1	113.72	5.47*
Within Group	4907.07	236	20.79	
Tukey HSD Post-hoc Test.	1vs 2**	1 vs 3**	1vs 4	2 vs 3**	2 vs 4**	3vs.4
Trust				
Marriage(A)	200.71	1	200.71	13.89**
Gender Perception(B)	392.17	1	392.17	27.14**
A X B	120.22	1	120.22	8.32**
Within Group	3414.81	236	14.45	
Tukey HSD Post-hoc Test.	1vs 2**	1 vs 3**	1vs 4**	2 vs 3**	2 vs 4**	3vs.4**

Note:- *= p<.05, **= p<.01

Finally, with respect to sense of trust, the picture is somewhat different. The observation of means (Table 4) pointed out that the married sex-typed has the highest mean of trust followed by unmarried androgyny, and then by married androgyny, and finally by unmarried sex-typed. The results of ANOVA also pointed to the significance of both main effects and the interaction effect. Further, all the six post hoc HSD comparisons are significant. Hence, the conclusions are derived that marriage as an institution brings more trust among the sex-typed women, while it reduces the trust among the androgynies. Therefore, in terms of cultivating a sense of trust, marriage brings about differences between androgynies and sex-typed. Further, this being a disordinal interaction situation (Figure 4), the results may be viewed that marriage and gender role perception have nonlinear interaction in the sense of trust among women. That is the sense of trust changes differently for the androgyny and sex-typed women in consequence to their marriage.

DISCUSSION AND CONCLUSION

In many of the previously cited studies, it is pointed out that androgynies have a better sense of mental health compared to the sex-typed. The present study using estimation of self-worth as precursors to mental health largely complied with the findings of the prior studies. Over and above, the present study added feathers to the prior findings in terms of the role of marriage in influencing the estimation of self-worth among women. Although marriage is found to be a liability for some measures of self-worth among women, it brings out a positive effect on sense of trust, which is a foundation of successful married life. In view of the findings of the study, the following conclusions are drawn.

Androgynies have better self-worth than their sex-typed counterparts in sense of achievement, sense of autonomy, and sense of competence whether married or unmarried. However, marriage as an institution has negative impacts on all these three self-worth measures. On the other hand, the

sense of trust as a self-worth measure is favored by marriage only for the sex-typed, while it is unfavourable for the androgynies. The findings may be explained that arising from the results of many prior researches, androgynies have better mental skills compared to their sex-typed counterparts. However, in case of the population addressed in the present study, marriage has come out as a very influencing institution affecting the self-worth of women. Further, trusts being a strong inbuilt mechanism of marital relationship among women of the said culture, sex-typed women who are socio-culturally considered better material of marriage, continue to be in advantage of the skill. Hence, the study also pointed to some cross-cultural relevance of the impact of marriage on gender role perception, and also on the perception of self-worth. The following limitations may be outlined for the study. (i) Having restricted the age range of the participants between 25 and 35, a lifespan perspective of the issue could not be explored which is actually a more important concern about mental health of women. (ii) Having taken the participants from middle SES families only, there may not be a good representation of the rural culture as most of the rural households are in the group of poor families.

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Brief Research Report

Training Clinical Psychologists in Addictions: Experience at NIMHANS

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ABSTRACT

Trained mental health professionals are an important requirement for addressing the challenges posed by addictions. Psychoactive Substance Dependence and Behavioural Addictions contribute to significant public health problems that require a substantial number of trained addiction professionals. Clinical Psychology offers theoretical understanding of health behaviours as well as therapeutic techniques that can bring about favourable change. These knowledge and skills have to be imparted to clinical psychologists to equip them to effectively treat addictive disorders. In order to meet the needs of having trained manpower in this speciality, the Department of Clinical Psychology at NIMHANS started a one month dedicated posting in the Deaddiction Unit of NIMHANS in 2005 for MPhil (Clinical Psychology) trainees. The posting covers academic, clinical and research training in an interdisciplinary framework. The growth of the field in the department is highlighted along with plans for the future.

Keywords: *Clinical Psychologists, Substance Use Disorders, Addictions, Training, Manpower Development*

INTRODUCTION

According to the World Health Organization (WHO), psychoactive substance use disorders contribute significantly to the global burden of disease. It pointed out that it is necessary to improve the quality of manpower to adequately serve the needs of this population (WHO, 2010). A decade later, the International Standards for the Treatment of Drug Use Disorders published by the WHO along with United Nations Office on Drugs and Crime (WHO and UNODC, 2020), reported that there was a significant treatment gap with regard to substance use disorders. It recommended a combination of medical and psychological approaches to improve chances of recovery from substance dependence. It also recommended that treatment services should take into account the gender and age of the individual so that the needs of women are addressed and special characteristics of children and adolescents who abuse psychoactive substances are included in the treatment programs.

The Center for Substance Abuse Treatment (CSAT) and the Substance Abuse and Mental Health Systems Administration (SAMHSA) had earlier emphasized that all professionals dealing with SUDs should have knowledge about theories of addictions and treatment approaches. In order to improve competencies in the field, it brought out a 'Technical Assistance Publication of Addiction Counseling Competencies' for professional practice. (CSAT, 2006). In 2009, the CSAT published a treatment improvement protocol for clinical supervisors to ensure that the counselors acquire knowledge and skills for addiction services (CSAT, 2009).

THE ROLE OF CLINICAL PSYCHOLOGISTS

Towards the end of the 20th century, Miller and Brown (1997) highlighted the need for clinical psychologists to be trained adequately in all aspects of addiction services. They pointed out that the high prevalence of SUDs and their physical and psychological consequences necessitates training of clinical psychologists to treat SUDs and not doing so would be unethical. Two decades later, Dimoff, Sayette and Norcross (2017) opined that clinical psychology as a hub science was well suited to offer multifaceted treatment to those struggling with substance use disorders. However, in their survey of more than 200 APA-accredited clinical psychology programs in the USA, conducted between 1999 and 2013, only 36% reported at least one faculty member who had an interest in SUDs, and only 32% of the programs reported having a specialty SUD clinic for student training. This situation did not change over the 14-year period. In a later article, Pedersen and Sayette (2020) outlined ways in which education and training in SUDs could be improved through clinical postings, mentoring and brief courses in addiction treatment.

Recently, Burrow-Sanchez, Martin and Taylor (2020) reported that in the USA, the standards and curriculum for doctoral level training of psychologists are largely dictated by the American Psychological Association's (APA) Standards of Accreditation (SoA) for Health Service Psychology which does not provide specific guidance for training in SUDs. They noted that at present many psychologists and counsellors are treating patients with SUDs in spite of having little or no training in this sphere. They recommended enhancement of training in addictions for clinical psychologists, counselling psychologists and school psychologists. Issues related to training psychologists in addictions in order to meet treatment needs have also been highlighted by MacKain and Noel (2020) and McCarty, et al (2020). Very recently, on May 6th 2020, the American Board of Professional Psychology's (ABPP) Board of Trustees (BOT) gave provisional approval to Addiction Psychology as a specialty board**.** It announced that licensed psychologists specializing in addictions could apply for Board Certification in Addiction Psychology under the American Psychological Association (APA, 2020)**.**

In the United Kingdom, the clinical guideline for management of drug abuse reported that it is important to train practitioners adequately, provide them with necessary

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clinical supervision and implement evidence-based interventions. This would entail manpower training to ensure professional competencies in addictions (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2009) noted that mental health problems among children and adolescents were related to a higher risk of substance use disorder in adulthood. Hence, indicated prevention of substance dependence is important for this population. It recommended that such children and adolescents should be evaluated by medical or psychological professionals. The prevention programs would require staff trained in motivational interviewing and parent training programs in addition to psychological care for emotional and behavioural problems. In 2011, it published drug prevention quality standards to be used by professionals, such as psychologists, working in the area of drug abuse (EMCDDA, 2011).

SERVICES FOR SUDS IN INDIA

Tripathi and Ambekar (2009) reported that several De-Addiction Centres-DACs have been established by The Ministry of Health and Family Welfare (MOH&FW), Government of India across the nation. These government centres are either in general hospitals at the district levels or in departments of Psychiatry at medical colleges. For ensuring minimum standards of care in these centres, they recommended that all patients, both outpatients and inpatients, must be offered psychosocial interventions. This would require trained psychologists and medical social workers. They recommended that psychosocial interventions should be provided routinely even if specialized psychotherapy is not feasible in such settings. However, they also noted that training psychologists in providing addiction related services is required to meet the treatment gap.

Recently, the National Mental Health Survey conducted in 2016 across 12 Indian states found a lifetime prevalence of 5% of alcohol and other substance use disorders. Further, the study found that the treatment gap was highest for substance use disorders (Gautham, et al, 2020). This indicates that adequately trained manpower is required to bridge the treatment gap. Very recently, the report of the National Survey on Extent and Pattern of Substance Use in India (Ambekar, et al, 2019) also noted that there is a significant treatment gap for SUDs which have to be addressed through capacity building and enhancement of treatment services. This would require training of doctors, psychologists and social workers in SUDs.

TRAINING IN THE NATIONAL INSTITUTE OF MENTAL HEALTH AND NEUROSCIENCES (NIMHANS)

The De-addiction Centre at NIMHANS was established in 1992 under the Department of Psychiatry. It has a 60-bed inpatient facility for adult male patients and in 2014, a 20-bed inpatient facility for adult female patients was added. The centre provides outpatient services three times a week for adult patients. The centre has a multidisciplinary team of mental health professionals. The Deaddiction Centre was renamed as 'Centre for Addiction Medicine' in 2011 (NIMHANS, 2020).

A training manual in psychosocial interventions for medical officers was brought out by the centre to which the first and second authors contributed a chapter on 'Family Interventions for Substance Use Disorders' (Suman and Sharma, 2007). In 2017, the Indian Psychiatric Society requested the head of the Center, Dr. Pratima Murthy to constitute a team to formulate guidelines for psychosocial interventions in addictive disorders in India. The guidelines were published in 2018 and all the three authors of this paper contributed to the guidelines (Ahluwalia, Anand and Suman 2018; Sharma and Palanichamy, 2018; Narayanan and Naaz, 2018). The third author was also the joint editor of the publication.

TRAINING IN THE DEPARTMENT OF CLINICAL PSYCHOLOGY

From the mid-1950s, when the department started postgraduate clinical psychology training, till 2005, training in substance use disorders for clinical psychologists at NIMHANS was through postings in the six 'Adult Psychiatry Units'. Services for patients with SUDs such as psychological assessment and intervention were provided in these six units. Two faculty members who had a special interest in the field, Dr. S.V. Nagalakshmi and Dr.P. Kodandaram, mentored postgraduate and doctoral research studies in the 1980s and 1990s. By 2005, the department had completed half a century of training clinical psychologists and had established specialized units such as Behaviour Therapy Unit and Neuropsychology Unit. These two units also carried out research in the area of SUDs but they were not primarily in charge of training postgraduates in SUDs. In order to meet the increasing need for specialized training in SUDs, the department decided to introduce a one month dedicated posting in the Deaddiction Centre for postgraduate students enrolled in the MPhil Clinical Psychology training program. Thus, the landmark decision reflected the international trends at that time.

This decision was taken in 2005 and the first author was given the task of evolving the training program and supervising the students apart from her work in an adult psychiatry unit. The posting enabled focused training in addiction specific assessments and interventions in the outpatient and inpatient settings. Issues related to polysubstance abuse, multiple physical and psychiatric comorbidities, dual diagnosis, psychological trauma as antecedent and consequence of substance abuse, comorbid personality disorders with substance abuse or dependence, suicide risk in addictions, self-harm behaviours, behavioural addictions, substance abuse related family dynamics, social and cultural issues as risk and protective factors, were more thoroughly understood by the trainees through clinical supervision of cases as well as formal case conferences. Further, training in assessment of cognitive deficits following long duration of alcohol dependence and cognitive remediation for such deficits was imparted.

To provide interventions, training in substance abuse interventions such as Motivation Enhancement Therapy (MET), Craving Management, Relapse Prevention,

Behavioural Couples Therapy and Family Based Therapies as well as Group Psychotherapy were imparted. Academic training in SUDs was strengthened through formal topic discussions and seminars that focused on psychopathology of addictions as well as prevention and treatment approaches. In addition, research training was provided through discussion of published journal articles and ongoing research projects at the centre. Formal evaluations of the trainees at the end of each monthly posting indicated that a majority of them were very involved in the clinical work and prejudices and biases related to the patient population diminished significantly after training.

Those who were inclined to pursue research in this domain, as part fulfilment of their course, were mentored in SUDs research studies. These studies, in addition to funded research projects, examined risk and protective factors for SUDs and family issues related to SUDs. Some of these studies have been highlighted in an earlier publication by the first author (Suman, 2012). More recently, the first author has mentored doctoral studies on women with SUDs. These studies have addressed the knowledge gap related to substance use among women in India and provided insights into gender specific psychopathology and therapeutic focus (Malik, Chand and Suman, 2017; Ahluwalia, Chand and Suman, 2020). These studies will help in planning more appropriate approaches to treatment for women who abuse psychoactive substances and training clinical psychologists in such approaches. A family-based intervention for young adults with SUDs is also being developed.

An offshoot of these studies, especially those that focused on domestic violence, adverse childhood experiences and family dysfunction, was the conceptualization and establishment of a 'Trauma Recovery Clinic' (TRC) in 2013 by the first author at the NIMHANS Centre for Well-Being (Suman and Satyanarayana, 2015). It is the first clinic of its kind in India which provides comprehensive and specialized screening and psychological interventions to individuals experiencing psychological trauma. Although the clinic is not specifically meant only for individuals with SUDs, it caters to those who are affected by various types of trauma, including interpersonal trauma from a substance using significant other. The clinic has conducted workshops on trauma informed care for clinical psychologists and counsellors.

In 2006, the second author joined the department as a faculty and was made a consultant in an adult psychiatry unit as well as the Deaddiction Centre along with the first author. This strengthened the training program and trainees had more options to pursue research studies in the field of addictions. The second author focused on training in understanding behavioural addictions in addition to SUDs. The knowledge base and the practical training were improved through mentored research studies and funded research projects. The studies on technology addiction revealed that it was associated with sleep difficulties, psychological distress, low self-confidence, decreased performance in academics, problems at work and interpersonal conflicts (Sharma, et al, 2017). A result of these studies was the establishment of a 'Services for Healthy Use of Technology Clinic' (SHUT Clinic) in 2014 by the second author at the NIMHANS Centre for Well-Being. It is the first clinic in India which has been set up to manage problems associated with technology use (Sharma, 2017). The clinic frequently conducts half-day to one-day awareness and sensitization programs for community health professionals, school counsellors/teachers and college students as well as mental health professionals about problematic technology use, its prevalence, impact, assessment, and self-help strategies for promotion of healthy use of technology and available pathways of seeking help.

In 2015, the third author joined the department as a faculty and she was given the primary charge of training postgraduate students in addictions at the centre. In her approach, she emphasized the role of personality and personality-focused interventions in individuals with substance use disorders. An example of this approach was recently published by her (Nazz and Narayanan, 2018). She established the Personality and Emotions Division of Research and Applications (PEDRA) in 2017 in the department to focus on these aspects in research, applications and training. Such a division with exclusive focus on personality and emotions has been started for the first time in a Clinical Psychology department in India. She is currently mentoring doctoral studies that examine adverse life events, development of therapies, process-oriented research, assessment of personality disorders comorbid with SUDs, role of psychological trauma, maladaptive schemas and meaning making.

One and a half decades of specialized teaching and training in SUDs has led to substantial improvement in knowledge and skills of the postgraduate trainees as evident by evaluations at the end of each posting. In their feedback after the posting, the trainees over the years have reported that addiction training was very relevant for routine clinical work. However, feedback from the trainees has consistently indicated that one month is inadequate to learn about the complexities of substance abuse disorders and undertake long-term therapy. They have opined that the posting should be of at least three months duration.

CAPACITY BUILDING

Considering the population of India and the extent of the addictions problem, it becomes necessary to train psychologists to become effective addiction counsellors. In this regard, the department has provided a two-month training to master's level psychologists working in government sectors in SUDs and Behavioural Addictions. More recently, training in substance use disorders was imparted to 'Well-Being Officers' of the Karnataka State Police and a training manual was developed to improve their skills in interviewing and counselling not only for SUDs, but also for common mental disorders (Kumar, 2018). Through the Centre for Addiction Medicine, the department has provided training to not only psychologists but also other health professionals in psychosocial aspects of addictions. Further, in 2018, the second author initiated an annual national level workshop for 'Early Career Professionals' in assessment and management of

'Technology Addiction' to motivate young psychologists to consider and plan a career in addictions. Through 'PEDRA', the third author has conducted workshops on 'Personality and Addictions' and 'Motivational Interviewing' for mental health professionals and addiction counsellors as well as personality focused interventions such as Dialectical Behaviour Therapy (DBT). Further, she has introduced a module on addiction in a training program on positive mental health conducted by the department.

FUTURE PLANS

In order to increase manpower and enhance their training, specialized courses in Addictions will be planned. These may range from one month for grass root level community health workers to three months for postgraduate psychologists. One-year training program will be planned for clinical psychologists to enhance competence in substance abuse assessments, psychopathology formulations and psychosocial interventions. The brief courses will primarily focus on improving awareness about SUDs and behavioural addictions, screening, counselling skills, brief interventions, prevention and making referrals. These will be useful not only for hospital and community health professionals but for school, college and workplace counsellors as well. The longer duration course for clinical psychologists will focus on more complex psychological interventions for SUDs and behavioural addictions. This will aim to enhance learning in complex, addiction-specific psychosocial interventions such as MET, Relapse Prevention and DBT-SUD across all age groups, particularly vulnerable populations such as adolescents, elderly, women, LGBTQ+, homeless, prison populations and migrants. Since psychological trauma and SUDs are significantly intertwined, the TRC will plan awareness and sensitization programs for addiction counsellors on trauma and its relationship to addictions. In addition, workshops on 'Trauma Informed Care' will be planned for mental health professionals working with SUD patients. The SHUT clinic is planning to start a one-month program in assessment and management of technology addiction to enhance training of mental health professionals to conduct technology use assessment and management in both clinical settings as well as non-clinical settings such as schools and colleges. Courses for skills building in specialized areas incorporating trauma-informed ethical practices, couple and family interventions and neuropsychology of addictions are envisaged for the future.

CONCLUSIONS

It is apparent that treatment of SUDs and behavioural addictions, and capacity building for the same, has received greater attention across the globe in the 21st century. Developed countries and developing countries like India have documented the significant treatment gap that exists in relation to treatment of addictions. Considering that individuals with SUDs frequently have co-morbid mental health and personality disorders, apart from physical health co-morbidities, brief addiction focused counselling will be inadequate to provide quality care. Addiction counselling has an important role in screening, early intervention, making appropriate referrals and implementing prevention programs in various settings. However, addiction trained clinical psychologists will be in a position to provide complex interventions for both the individual and the family. This would require Clinical Psychology departments in the country to have postings in deaddiction centres for their trainees to improve their knowledge and skills regarding this underserved population. There is tremendous scope for research and professional growth in this specialized domain. Professional investment in this sphere will in turn benefit clinical services and also provide information for public policy.

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Case Report

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Mindfulness Integrated Cognitive Therapy in Predominant Sexual Obsessions: A Case Report

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ABSTRACT

Pure or predominant Obsession is a subtype of obsessive compulsive disorder (OCD) which approximately affects one fifth of OCD population. Due to covert nature of the symptoms, pure obsession is tough to treat with traditional exposure and response prevention (ERP) therapeutic procedure. The present case report describes the application of mindfulness integrated cognitive therapy (MICT) in the treatment of 43 years old, drug-naïve, male patient with pure obsession and secondary depression. At the pre-assessment he was having severe level of obsessive compulsive symptoms characterized by sexual obsessions and covert compulsions. After receiving 10 sessions of MICT, patient reported 74% reduction in his symptoms that further decreased after 3 months follow-up and patient no longer meet the criteria for OCD.

Keywords: *OCD, Predominant Sexual Obsessions, Mindfulness Integrated Cognitive Therapy, Mindfulness Meditation*

INTRODUCTION

OCD is currently considered to be one of the five most prominent psychiatric disorders (Stein, 2002). According to DSM-5, OCD is characterized by the presence of obsessions and/or compulsions. Pure or predominant obsession is a subtype of OCD which affects approximately 20 – 25% of OCD population (McKay et al., 2004). Clark & Guyitt (2007) defined pure or predominant obsession as "obsessional thoughts, images or impulses that are not accompanied by motor compulsions or very few if any, but can occur with cognitive or mental compulsions or other forms of neutralization". Cognitive Behavior Therapy (CBT) with Exposure Response Prevention (ERP) is the recommended psychological treatment for OCD (National Collaborating Centre for Mental Health (UK), 2006). But patients with pure obsessions are difficult to treat with traditional CBT with ERP (Whittal et al., 2005) due to the covert nature of the symptoms. Mindfulness-based interventions have been utilized successfully in the treatment of various psychological disorders including OCD (Mathur et al., 2016; Didonna, 2009; Key et al., 2017). The mechanisms of mindfulness namely – acceptance, metacognitive change, exposure, minimization of experiential avoidance, relaxation and self-management are relevant for the treatment of OCD. Mindfulness approach works on metacognitive level which leads to modification of beliefs related with importance given to obsessions and enhances nonjudgmental acceptance, reduces experiential avoidance that in turn encourages exposure to all fragments of inner events. Literature showed that only two studies integrated mindfulness strategies with cognitive behavioral techniques in the treatment of pure obsessions (Kumar et al., 2016; Wilkinson-Tough et al., 2010). In the present case, Mindfulness Integrated Cognitive Therapy (MICT) was applied in a male patient with pure obsessions and secondary depression.

CASE HISTORY

Mr. R was 43 years old married man working as a software engineer in Bangalore city, presented with 15 years history of unwanted and irresistible sexual thoughts about his mother at OCD Clinic of NIMHANS, Bangalore. Since last 2 months the intensity and frequency of these thoughts increased leading to immense distress and low mood and affected his regular day to day activity. He had family history of OCD in a first degree relative. He was diagnosed with Pure Obsessions and Comorbid Secondary Depression. He did not want to take medicine; hence he was referred for psychotherapy. On detailed interview, he revealed that he had been getting thoughts with sexual contents and abusive words about his mother which he tried to handle using mental neutralizations such as thought replacement, distraction, suppression, control and avoiding mother. He did not have any overt compulsions. He had low mood which he attributed to his unacceptable obsessive thoughts. He had good insight about his problem.

ASSESSMENT

After obtaining informed consent from the patient, pre-assessment was completed. At the completion of therapy, post-assessment was carried out. The follow-up assessments carried out after 3 months. The assessment tools which were used are –YBOCS-Severity Scale, Y-BOCS-Avoidance Scale, Clinical Global Impression Scale-Severity (CGI-S), Depression Anxiety and Stress Scale (DASS-21), Five Facet Mindfulness Questionnaire (FFMQ) and World Health Organization Quality of Life Scale (WHOQOL-BREF).

THERAPY

Subsequent to pre-assessment, he received ten biweekly MICT sessions of 90-120 minutes duration. The contents of MICT included psychoeducation to develop understanding about the disorder from cognitive and mindfulness perspectives using metaphors and analogies (Didonna, 2009), sharing the concept of mindfulness and its relevance, practice of different variants of mindfulness meditation namely - sitting mindfulness meditation, breathing awareness and practice of informal mindfulness to enhance moment to moment awareness, attention retraining and relapse prevention. Obsessions were conceptualized as 'false messages' from own mind which do not need any reaction or neutralization. Patient was encouraged to observe the thoughts nonjudgmentally as passing mental

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events including obsessions. In addition to in-session mindfulness meditation practice, daily practice at home was emphasized. The understanding was developed in the patient to be aware of cognitive fusion errors during the experience of obsessions and dealing with same by applying mindfulness skills with 'let go' attitude.

STATISTCAL ANALYSIS

A comparison between pre and post assessment and post and follow-up assessment scores was computed to assess the effects of the intervention. The percentage of change (PC) was calculated using the formula given by Jacobson & Truax (1991).

The following formula was used to calculate the percent of change (PC) in Y-BOCS-S, Y-BOCS-A, CGI-S and DASS

Post therapy PC = [(Pre score – Post score)/ Pre score] X 100

Follow up PC = [(Post score – follow up score)/ Post score] X 100

For FFMQ and WHOQOL-BREF, the reversed formula was used as increase in the scores was considered as improvement.

Post therapy PC = [(Post score – Pre score)/Post assessment score] X 100

Follow-up PC = [(Follow up score – Post score)/Follow up score] X 100

RESULTS

The baseline assessment presented in table 1 shows that patient had severe obsessive compulsive symptoms with moderate level of avoidance and depressive features and severe level of anxiety symptoms.

Table 1: Pre, post and follow-up assessment scores with improvement percentage on measures of symptom severity, depression, anxiety, stress, mindfulness and quality of life.

Tools		**Score at Pre assessment**	**Score at Post-assessment**	**Improvement percentage at post-assessment**	**Score at 3 months follow-up**	**Improvement percentage at follow-up assessment**
Y-BOCS Severity	Total	31	8	74.19%	5	37.5%
	Obsession	14	4	71.43%	4	0
	Compulsion (mental)	17	4	76.47%	1	75%
Y-BOCS - Avoidance		2	0	100%	0	0
CGI - Severity		6	1	83.33%	1	0
DASS	Depression	10	2	80%	2	0
	Anxiety	9	3	66.67%	1	66.67%
	Stress	11	5	54.55%	6	20%
FFMQ	Observe	28	32	12.5%	27	15.63%
	Describe	18	35	48.57%	36	2.78%
	Act with Awareness	18	36	50%	33	8.33%
	Nonjudgmental	13	37	64.86%	38	2.63%
	Non-reactivity	14	27	48.15%	30	10%
WHOQOL	Physical	20	33	39.39%	32	-3.13%
	Psychological	14	25	44%	27	7.40%
	Social	10	13	23.08%	12	-8.33%
	Environmental	31	36	13.89%	34	-5.88%

Y-BOCS = Yale-Brown Obsessive Compulsive Scale, CGI = Clinical Global Impression Scale

DASS = Depression Anxiety Stress Scale, FFMQ = Five Facets Mindfulness Questionnaire

WHOQOL = World Health Organization Quality of Life Scale

Table 1 further shows that at post-assessment 74.19% improvement was observed on Y-BOCS score indicated 'mild severity' degree of symptoms. Further improvement of 37.5% was observed in the symptoms at follow-up assessment bringing the symptom severity under 'subclinical' category. The scores on CGI-S, DASS and WHOQOL were also improved significantly at post intervention which were retained at follow-up.

DISCUSSION

The present case highlights that MICT was effective in reducing obsessive compulsive, depressive and anxiety symptoms and improving quality of life in this patient with predominantly obsessions with sexual contents. The MICT module did not include cognitive and exposure strategies, therefore, the observed improvement can be understood in terms of enhanced metacognitive awareness,

nonjudgmental acceptance and application of mindfulness skills which were cultivated through the practice of mindfulness meditation. The mindfulness skill acquisition is reflected in significant improvement in FFMQ facet scores. The decline in depressive and anxiety symptoms and improved quality of life can be attributed to reduced OCD severity. Previous studies on mindfulness-based interventions in mixed OCD (Mathur, 2016; Didonna et al., 2019; Key et al., 2017 ; Strauss et al., 2018) and predominantly obsession (Kumar et al., 2016; Wilkinson-Tough et al., 2010) have reported similar findings. Most of these studies integrated mindfulness techniques with cognitive and exposure strategies including the studies on pure obsession which made it difficult to attribute the improvement to any specific technique. The patient reported that metaphors and examples used in the therapy and the practice of mindfulness meditation were very helpful in overcoming his obsessive compulsive symptoms and reducing distress related with them significantly.

The brief structured MICT was found to be useful in the management of predominantly obsessive symptoms. The time-limited easy feasibility aspects of MICT are the considerable advantages. However, to establish its effectiveness in patients with pure or predominant obsessions well controlled studies with adequate sample size are needed.

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Case Report

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Anger in Psychotherapy: A Case Report

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ABSTRACT

Anger is not a new problem, addressed in psychotherapy. There are various schools of psychotherapy that conceptualize and manage anger in different ways. However, anger can pose several challenges in psychotherapy, as the individual often does not consider anger as problematic. One of the complications of anger in psychotherapy is that it could be the overt presentation of a more complex set of pervasive issues; such as rigid personality traits, communication style; which also manifest in psychotherapy. Hence, these warrant an approach that aids deeper understanding on part of the clinician in the origin and manifestation of the anger. This case report attempts to describe the process of psychotherapy for a case of anger, with complex personality issues and discuss the unique concerns of anger in the light of literature.

Keywords: *Anger, Psychotherapy, Personality traits*

INTRODUCTION

Although anger is a common emotion, within the clinical population, anger can be of concern and challenge (Narcoss & Kobashi; 1999). Anger dysregulation, in terms of difficulty in controlling the intensity as well as the expression of anger is debilitating - mainly due to the damage it causes in the form of behavioral or verbal aggression, to the aggressor as well as others involved. Equal are its dysfunctions and damage when anger is suppressed, causing chronic stress and other interpersonal problems for the individual (Novaco; 2010). Anger is rarely a standalone problem, and often stems from, and is embedded within a myriad of interpersonal and intrapersonal issues (Robins & Novaco; 1999). Of these factors that contribute to anger, personality is one of the challenging factors, due to the pervasive and long standing nature. Anger is a clinical feature of many personality disorders including-Borderline Personality Disorder (BPD), Anti-Social Personality Disorder, Narcissistic Personality Disorder, obsessive compulsive personality disorder. Anger in these personality disorders may serve different purposes - misinterpretation of personal threat in relationship, restoration of grandiose self, control over other's behaviours and one's environment etc. (Williams, 2017). The ego-syntonic nature of many personality traits makes it more challenging to address as the person may not experience distress due to it or is not aware of its dysfunctional nature.

Although anger is a concern addressed in psychotherapy, studies on treatment for anger and aggression comprise mainly cognitive or behavioral methods or a combination of both (Glancy & Saini, 2005). The main components of these treatment involve, relaxation training, cognitive restructuring and skills training. Other psychotherapeutic orientations also address the issue of anger (Mayne & Ambrose, 1999). However, there is not enough literature in the form of case reports or reviews when compared with the cognitive and behavioral methods. Despite the differences in the theoretical orientation, nearly all interventions have yielded comparable results; with reduction from higher levels of anger to normal levels of anger after treatment (Mayne & Ambrose, 1999).

Apart from the challenge of treating anger embedded within personality due to its long standing, pervasive and ego-syntonic nature, it is also important to attend to the development of anger as a way of relating and coping. Further, India being a collectivistic culture, clients are often brought to treatment by family members, serving as external loci of control. The present case report highlights the challenges involved in psychotherapy for a client with mixed personality disorders and longstanding problems with anger, presenting alone. This case report aims to outline factors and processes presenting challenges in therapy, including awareness and reflection of therapist responses. The case describes how anger can manifest as only a symptom of a larger cluster of issues.

Case history

Mr. P was a 41 year old male, with post-graduate education, working in corporate sector, from a middle socio-economic status. He contacted the outpatient services and after the initial evaluation was diagnosed with Adult Attention Deficit Hyperactivity Disorder with impulse dyscontrol and was started on medication T. Oxcarbazepine, 300 mg and was referred for psychotherapy. Personality assessment was undertaken to clarify and understand the underlying problems and to devise appropriate ways of management. The following details were collected during the initial psychiatric evaluation and intake for psychotherapy.

The precipitating event to P's presentation to psychiatric outpatient services was his wife of 12 years filing a divorce and willing to consider reconciliation on the condition that P seek treatment for anger. Their marriage, always disharmonious, grew more conflictual after the childbirth and exacerbated when their child was 5 years of age. From P's perspective, his wife was not organized, was uninvolved, and prioritized her job over the family. Conflicts were also triggered by events not meeting the standards of P (eg. If meals were not ready on time). Arguments would escalate to P being verbally abusive, breaking household articles, or self-harming by biting or slitting his wrist.

Developmentally, P was the first born of two siblings. He was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) at age 6, however was not treated. He had stammering (minimally present during sessions) since age 10, following a move to a new city and school. He described

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his father as rigid and particular about routines, with verbal aggression against his mother when his needs were not met. P recounts that his father's involvement was not emotional, but only disciplinary and punitive, consequent to bad behaviour or grades. He described as being close to mother, who was unavailable as she was occupied with meeting the father's needs and not getting him angry. P developed stealing, lying and truancy for a period of approximately 5 years in late childhood and adolescence when there was lack of supervision from his parents. His school performance was average; however he describes college as a turning point in his life, when he became more organized, efficient, and motivated to perform well; as he felt the environment was structured and promoted focus in academics. Since then, P remembers believing that there was 'a right way of doing things' and setting high standards for his work, and taking pride in the same. At work, he was efficient and responded with anger when colleagues did not meet his standards of performance or when others were not 'disciplined'. In one such disagreement with superiors he had a verbal altercation leading to being fired from the job. P did not use alcohol or other substances.

Assessments

The following tests were administered to assess the patient's personality and interpersonal functioning and information processing ability. a) 16 personality Factors Questionnaire; b) Sentence Completion Test; c) Thematic Apperception Test; d) SCID-V e) Tests of attention, working memory and processing speed; f) Adult ADHD Self-report rating scale.

With regard to the information processing domain, P's performance showed adequate attention span, visuo-spatial working memory, verbal working memory and processing speed (on Spatial span and Digit span tests from WMS III and Digit Symbol from WAPIS).

Score of 26 on Adult ADHD Self-report rating scale indicated that client was 'highly likely' to have ADHD.

Findings from SCID-V indicated that patient met the criteria for Obsessive- Compulsive Personality Disorder and Emotionally Unstable Personality Disorder, and also has traits of Anti-Social personality disorder and Narcissistic Personality Disorder. However, these findings are based on self-report and the information could not be corroborated with a reliable informant.

In general P viewed himself positively, described himself as outgoing and assertive, hardworking, competent, determined and persistent with regards to work. He appeared to give utmost importance to work and academics; although regret was expressed regarding his performance in academics, and stammering and short temper were viewed as weakness. In contrast to his work competence, he was apprehensive and worrying, emotionally unstable and easily affected by feelings, indicative of weak ego strength. It was also noticed that there was a tendency to justify and rationalize anger and blame others; as there was no expression of remorse regarding anger outburst. The common defences used were rationalization and inhibition; with a lenient superego that spares from being punished or feeling guilty. P's difficulty in resolving interpersonal problems, could be noted in his rigidity where he could not think of compromise or any alternate resolution. He reported himself to be group dependent and cooperative with cordial relationships with colleagues and friends, although he expects perfection from others at work place. Conflict with father figure was significantly evident, with father perceived as being strict and rejecting. Client also viewed his family as not having provided enough care and support to him.

Psychological Formulation

P's childhood was characterized by neglect and devaluation; as he felt that his sister was preferred over him. The early experience of devaluation, could have led to formation of belief that one is inferior (Beck, Freeman & Davis, 2004). These feelings of inferiority could have been compensated by narcissistic tendencies of identifying with a powerful other, i.e., his father. Further, his father was rigid and particular and also modelled anger whenever his demands and expectations were unmet. With the emphasis on performing well and achieving in academics; which overshadowed emotional closeness, along with learned behavior from father; P could have developed tendency to strive for perfection of self and others (Sperry, 2016); which was further reinforced by his college environment. Although perfectionistic and narcissistic tendencies helped in being successful in his career, the rigidity and inflexible standards and expectations led to interpersonal conflicts. In the presence of poor interpersonal problem solving as indicated on tests, and anger being a familiar and learned style of responding, P responded to frustrations of his demands and expectations and any slight to his self-esteem with anger. Although the anger had been maladaptive it was reinforced throughout as his demands were met and his needs communicated. Further, due to the lenient superego as indicated on testing, he was unable to see how damaging his anger was and hence never considered anger as a problem. It was only after losing his job and a threat of losing his son to divorce that P came to realize its maladaptive nature and to seek help.

Initial Phase

When P sought treatment, it was clear that he was not motivated to change for himself, but for avoiding a divorce and separation from his son. Hence motivational interviewing (Miller & Rollnick; 2002) was used to enhance motivation for change.

P agreed largely with the feedback of assessment, and in a discussion of the advantages and disadvantages of anger, listed that anger ensured that the other person listened to his views and 'got things done'; however admitted that it had caused a lot of loss to him – marriage, family life and loss of his job. P admitted that it was time to address his anger. He was especially fond of his son and wanted to be with him; which seemed to be his primary motivation to seek treatment. He elaborated on the dreams and plans he had for his son's future. However, it was observed across narration of anger incidents towards his son that P did not take responsibility for anger, used blame, or initiated reparation by giving gifts and toys.

In the initial phase, the therapist was aware of the felt anger towards the client for his insensitivity and remorselessness, and high-handed behaviour in the hospital. Discussion with

the supervisor helped therapist reflect on client's anger as re-enactment of early ways of coping, and instead of responding to the current anger of the patient, to reflect on the origin of the anger. This helped the therapist to maintain neutrality and respond to the client more empathically.

Middle phase

The focus of the following sessions was on understanding anger as an emotion, exploring with the client the situations in which he felt anger, and uniquely individual perceptions, attributions and responses. P was able to reflect on his cognitions associated with the situations, and with therapist help could reflect on alternate ways of feeling and behaving. P's views of the purpose served by anger, as communicating and meeting needs, were discussed, along with reflection of other adaptive ways of achieving these needs. Homework included identifying cognitions associated with anger-provoking situations and generating alternatives. P's need for perfectionism was also demonstrated in his approach to homework (neatly typed, and printed, with bullet points).

Perfectionsim as a trigger for anger was discussed – e.g., when people are not punctual or do not keep their word. Exploration revealed an expectation that others should subscribe to the same values as he did, which however P showed resistance to modification. In one particular instance, P attempted to seek validation for his style of thinking by engaging the therapist in hypothetical scenarios. The therapist used this as an opportunity to model flexibility, validating P's perspective, but also generating alternative explanations for the other's behaviour, e.g., making allowances for unintentional, situational, and other factors, and wondering whether the consequences were intolerable or merely inconvenient. P was able to accept the reframing and acknowledged that his thoughts and beliefs need not always be 'the only right way'. Mindfulness was introduced through provision of resource material and in-session practice.

Termination phase

P reported improvement with regards to his anger. He had got a job by then and was regular to work. Review of P's stance on divorce revealed that he now considered it the better outcome, and had fortnightly / monthly visitation with his son. P seemed to have accepted the situation and had made plans regarding how he would spend time with his son. P was also able to reflect on mindfulness and nonjudgmental awareness, that all this while he had been reacting instead of reflecting and that was the main problem.

The final session was held after a gap of two months. In the interval P reported that the divorce proceedings were coming to an end and seemed to have accepted the outcome. He was performing well in the new job and reported that he would be moving abroad very soon for his career. His anger episodes had reduced in frequency and intensity, as reported by self. Therapist explored about the origin of the anger. P reflected that he must have learnt it from his father. Further exploration of childhood experiences in which P expressed anger revealed that P felt neglected by his father who preferred his sister, and that the only way he could get his attention was when he would be angry and throw a tantrum; although that left him to face his father's wrath. The therapist validated the experience of the patient and explored the primary emotion that P experienced in response to the neglect and the experience of not being the preferred child. P was finally able to express the vulnerable feelings of hurt, albeit briefly. Some avoidance was still noted, as P shifted the discussion saying that it is not the case anymore and that he is able to better manage anger now. This area could not be explored further as P moved abroad shortly after.

DISCUSSION

Anger is a clinical concern when it causes problems in the adaptive functioning of the individual, as it can be noted from the case discussed. It can also be observed how a dysfunctional level of anger can be a challenge for the individual themselves to change as it is ingrained and reinforced since a long time. One of the factors that makes anger a difficult target in therapy is because it serves an important function to the individual. Further, as a consequence, client motivation for change may be limited (DiGiuseppe & Tafrate, 2007). More often, anger is realized as a problem by the individual only after a major loss or negative consequence due to anger. It is also possible that the individual would still refuse to assume responsibility for anger, and continue to blame the situations and others (DiGiuseppe & Tafrate, 2007).

In this context, taking a Cognitive Behavioral approach of challenging may not be sufficient in itself. It is essential to adapt approaches that could aid in motivating the client and facilitating insight into the origin and function of such maladaptive ways of relating. Often, understanding the problem, in this case the anger, in the context of why it is happening, by linking past events to current behavior helps gain insight; leading to a new perspective and new ways of responding (Moro, Avdibegovic & Moro; 2012). Thus, the problem is a problem as the behavior from the past continues and persists beyond the point of adaptive relevance. In this case, the anger, modelled by the father, was the only way of responding that P knew of communicating need for affection and attention from his father; continued into adulthood. Thus, therapist's awareness of this pattern and reflection of the same; provided space to learn new ways of responding. In sum, it was the inflexibility in responding that was maladaptive; be it anger or perfectionism; and the goal of psychotherapy is to provide adaptive alternatives. Although the initial sessions adopted a primarily Cognitive Behavioral approach, during the fifth session there was a window to view the anger in light of psychodynamic perspective. With the awareness of client's usual pattern of relating and therapist's stance of not reinforcing these patterns of rigidity and narcissistic rage; client had a novel emotional experience which could have helped in change of behavior. With further sessions, therapy could have focused more on the dynamic interpretations of his anger and more corrective emotional experience. P's responsiveness to the environment, observed as his becoming organized and disciplined in response to his structured college environment; is an asset that suggests that P would respond positively if the corrective environment were provided within the therapeutic alliance.

Although diagnoses are useful and necessary in providing clarity regarding the case, sometimes it induces

hopelessness and doubt in the therapist; especially when there is a diagnoses of mixed personality disorder. Hence, it is important to be open and hopeful. In this case, this hope was provided by some of the client characteristics; that he was psychologically minded and had the ability to reflect on his experiences and had active participation in the psychotherapy (Levy & Clarkin, 2003).

"The most tragic form of loss isn't the loss of security, it's the loss of the capacity to imagine that things could be different." –Ernst Bloch

Be it anger or psychotherapy, it is this inflexibility that things couldn't be different that makes it difficult for the individual and challenging for the clinician.

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Case Report

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A Cognitive dilemma: Case Report of Gender Dysphoria Assessment

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ABSTRACT

With increase in gender affirming medical interventions, the need for psychological assessments has emerged. Indian mythology has many references to transsexuals and androgynous deities including Chitrangada. We present a neuropsychological assessment and brief intervention of a case diagnosed with Gender Dysphoria Identity Disorder. He was evaluated on mental status examination, rating scales, NIMHANS Neuropsychological Battery for executive. The assessment over all indicated adequate ability to express choice, understand, appreciate and reason the process. We discuss the approaches of neuropsychological evaluation and the challenges associated with the assessment for clinicians.

Keywords: *Gender Dysphoria Identity Disorder, Neuropsychological assessment, Neuropsychological interpretation*

INTRODUCTION

The word gender or sex of an individual in no more binary, it has components of biological, identity, roles, orientation etc related to gender. Gender identity refers one's definition of herself or himself in terms of femininity and masculinity. This has personal, private sense of the body and the relation to the gender role expectations (Margaret). Each individual is assigned to particular gender at birth, known as natal or biological gender, a person with gender identity, has issues with their biological gender, might have dissatisfaction and discomfort with their assigned gender and they would like to change to opposite gender. As per Diagnostic and Statistical Manual of Mental Disorders, Gender dysphoria is "defined as marked incongruence between an individual's gender identity and assigned gender with associated distress or impairment". Historically trans healthcare viewed trans identities as deviant. Over the years, it has gradually created access to gender-affirming care including medical interventions. The mental health professionals aid in assessment and management in order to obtain gender-affirming medical interventions (Frohard-Dourlent, 2020). The critics argue that, assessments could discriminate against population, a psychological scrutiny, double standard gendered norms, which questions the autonomy of the transgender person's autonomy (Budge & dickey, 2017) causing adversarial administrative and empowering process of the section (Bockting et al., 2006; Collazo et al.,2013). Those in support, view it as, providing care, for surgeries as in involves significant alterations to one's body and suggest that assessments act as a safeguard, against the potential harm that may result post-surgery, such as post-surgical regret (Boumanet al., 2014). The interventions such as hormone therapy and surgery have shown positive effects on both mental health and quality of life in general (Agarwal et al., 2018; Wernick et al., 2019). The existing guidelines in the west include a) the American Psychological Association's Guidelines for Psychological Practice with Transgender and Gender Nonconforming People (2015) and b) the World Professional Organization for Transgender Health (WPATH)'s Standards of Care (version 7- Coleman et al., 2012).The affirmative presurgical interview includes a standard medical and mental health history. The other aspects explored are gender developmental history, readiness to undergo the procedure with informed consent, awareness on pre and postoperative care, availability of resources from social and family (Keo-Meier & Fitzgerald, 2017). The medical competency model, is widely used for evaluating the capacity to make medical decisions, where the focuses mostly on one's capacity to comprehend possibilities of the procedure, and other alternatives, through an interview. The functional elements of capacity consist of four elements namely, *expressing choice*, *understanding appreciation* and *reasoning*. In other words, it is the ability to communicate a treatment choice, understand the advantages, disadvantages, alternatives, in addition to concerns which may arise and impact the individual and to process the information in a logically (Berg, 2001). The psychological assessment is useful for the diagnoses of gender dysphoria, comorbid conditions, psychosocial aspects. The assessment safeguards the aptitude to make a cognizant consent. It serves as a framework to one's decision-making and to sustain their individuality. A comprehensive assessment for gender dysphoria includes, a gender assessment, general assessment of cognition and personality assessment, identifying strengths and resources. The mental status exam is essential for "informed consent". The account of sexual history would aid in appreciating the client experiences of current sexuality and post-surgery with the changes that accompany. Keo-Meier and Fitzgerald (2017) highlighted the paucityof consensus and measures, specific to transgender population. Hence, thorough clinical evaluation and adequate knowledge will help clients plan for successful treatment and recovery.

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Chitrangada: a cognitive dilemma

Transgender are considered mystical and auspicious in India. Indian mythology has many references to transsexuals and androgynous deities. Both the Ramayana and Mahabharata narrate, characters with transitional gender roles and those who struggled with their gender identities. As seen through Chitrangada, a warrior on a quest to discover her gender identity, until she was enchanted by the love of Arjun in Mahabharata, (Joseph, 2020). In India, Census of 2011, indicated presence of four lakh transgender population. India does not yet have a its own standard protocol, for gender affirming surgery and follows international guidelines. The complexities of hormone regimens and surgical interventions are challenging. Here we present a case report, the psychological assessment and the brief intervention carried out for an individual before gender affirmation surgery. Not only there is lack of consensus given cultural dimension, but also challenges while interpreting the test results due to the gender norm which causes cognitive dilemma of interpretation.

Table 1: Raw scores and percentile scores on tests of executive functions

Neuropsychological Test	Raw score	Percentile (Male)	Percentile (Female)
Controlled Oral Word Association test	13	70	60 -70
Animals Names Test	16	70	50
Verbal N Back test			
• 1 Back Hits	09	48-95	25 – 95
• 1 Back Errors	00	100	100
• 2 Back Hits	13	6	95
• 2 Back Errors	10	3*	3*
Tower of London (ToL)	09	60-70	60 – 70
Stoop Test	84	85-88	80-87
Wisconsin Card Sorting Test			
• Correct responses	73	70	50-60
• Errors	21	69-75	68-74
• Perseverative responses	19	50-54	52
• Non-perseverative errors	2	97-100	94-97
• Conceptual level responses	60	40-60	30
• Categories completed	6	60-95	50-95

***<15 th percentile (indcative of deficit) [8]**

Case Report

Mr. CK , 31years, assigned male from birth, hailing from Bengaluru, educated up to Pre-University College, unmarried and self-employed with nil significant past history, family history, premorbidly sensitive to criticism, reported to outpatient Psychiatry Department. Clinical evaluation suggested, Gender Dysphoria Identity Disorder. His purpose for consultation was to procure a certificate, in order to undergo sexual reassignment surgery. In August 2019, he was referred for a psychological evaluation, by the treating Psychiatrist. Patient's attention could be aroused and sustained. His receptive and comprehensive language was adequate. His mood was euthymic. The reaction time was within normal limits. He was cooperative and motivated, the assessment was carried out over two sessions, followed by brief intervention. The NIMHANS Neuropsychological Battery for executive functions was administered. The battery measures higher cognitive domains such fluency, working memory, planning, response inhibition. The raw scores obtained on the cognitive functions tests were converted to percentiles using normative data (age / gender and education). The executive functions / executive control has three core components: 1. Inhibition, 2. working memory, and 3. cognitive flexibility. These functions are essential top-down mental processes. The rational for using mood scales and executive functions was to assess that the patient has adequate cognitive capacity to make informed consent. The clinical observation, mental status examination and standardised neuropsychological assessments reveal that he has average level of intellectual capacity, with no significant mood symptoms as on Beck's Depression Inventory (6) and Hamilton Anxiety Rating Scale (1). His neuropsychological assessment suggested adequate executive functioning, including ability to attend the task, generate, plan, set shifting, response inhibition, however there was mild impairment in working memory (Table 1). The assessment over all indicated adequate ability to express choice, understand, appreciate and reason the process. Post assessment, counselling sessions were carried out to facilitate ventilation, identify resources and coping mechanisms, for possible stigma and psychosocial challenges pre- and post-surgery.

DISCUSSION

The strength of the neuropsychological field is the use of scientific and objective measures to appraise cognitive faculty, and to draw deductions about neural mechanism. Conversely, with transgender individuals, use of normative data for the interpretation of measures can pose a difficulty. The normative data available for tests are gender specific. The clinician is faced with the question, which standards are most suitable for the patient, should one consider the natal sex or patient-identified gender? The presurgical evaluations for surgery related to gender transition are fundamentally different from other surgical conditions. Hence it critical that clinicians be trained and should consult and liaison with the surgical team before conducting assessment and planning the intervention. The assessment or the interview in addition could account for the impact of trauma and discrimination on cognitive functioning. The psychosocial qualities of an individual's life should not be minimalized or disregarded when preparing an individual for a very demanding, irreversible surgery changing life (Graham 2013). We need to develop and adapt a culturally appropriate tools given the sensitivity and stigma attached. However, the Cognitive Dilemma continues: which tests are to be used? which norms are appropriate? Whether one should apply an idiopathic method, however then the replication and comparison becomes a problem. What are the consequences of these neuropsychological assessment clinically and legally? Assessment is conducted, despite the limitations, with the insufficient transgender-specific normative data, the field could utilize the best practices

available and to use non-gender-stratified. The following section highlights the recommendations suggested for report and therapy.

In terms of assessment, the content of the letter report could contain background information of socio demographic details and identifying characteristics such as age, education, family constellation, socio economic status, history of the patient's gender incongruity, sexual history (current if any anticipatory post-surgical sexual concerns), prior surgeries, current medical and mental health history (abuse of substance, deliberate self-harm ideation, attempts, treatment and hospitalizations), cultural considerations if any. In addition, a statement referring to the necessity of surgery, a statement verifying the diagnosis of gender dysphoria, results of the assessment for the indicated procedure (Ettner 2018). In terms of therapy, as Ettner implies the metaphor of "soul retrieval," where the clinician, through the therapy, aids retrieve the lost essence of the person. A trained therapist, who is empathetical with open-minded, flexible approach would be beneficial. There is a need for clinician to develop new models or frame conservative models using multidisciplinary aspects in trans-positive ways (Lin Fraser 2009).

Trittschuh (2018), recommends for markers of effort for performance validity issues and emphasized brief discussion of any limitations about conclusions or diagnostic impressions and the feedback system. In cases where the normative alterations affect elucidation, the patient could be informed about the differences, showing both female and male norms. The collaborative discussion could help in the formulation for intervention. Keo-Meier and Fitzgerald (2017) have published a "call-to-arms", which emphasizes the prominence of creating competence of the examiner, steering pre-treatment assessments, balancing the symptoms of mental health versus the diagnosis of gender dysphoria, and general sensitivities for testing a sensitive population. The utility of the psychological assessment could function as a framework to develop interventions. Hence as indicated by Keo-Meier 2018, mental health providers need to involve by evaluating, providing care, support, though out the process of decision-making and recovery (Keo- Meier &Ehrensaft, 2018).

CONCLUSION

The concept of trans health has moved from deviant to gender affirming care. Multidisciplinary teams evaluate affirmative presurgical readiness. The mental health professional aids in diagnosis, psychological /neuropsychological assessment followed by a brief counseling or psychotherapy. The dearth of tests norms on a transgender population need to factored by clinicians. Till the area is better considered, we need to assess and interpret with caution. Hence globally it is recommended that more research is needed on the effect of "endogenous and exogenous hormonal milieu", on both neural and functional aspects (Trittschuh, 2018). As scientist-practitioners, our accountability would be to fill up the existing gaps and to provide best practices where ever possible with strategic goals which would be way forward. The case highlights the challenges faced while interpreting psychological assessment. The recommendation from various clinical / academic / research could be utilized for a better care model. The implication of this case suggests that, we need standardized assessments which are culturally sensitive and ecologically validated especially given the complexities of the population both biologically and psychologically. The Chitrangada, a cognitive dilemma is an illustration of how in the process of assessing the cognition of the client, the clinician's dilemma continues.

There is a need to develop and adapt culturally appropriate tools, in view of the sensitivity and stigma attached to gender issues. Till then the Clinical Dilemma continues for cognitive capacity: which tests? which norms are appropriate? Whether one should apply 'normative' or 'process approach' based interpretation of the neuropsychological assessment. In the absence of gender normative data, process approach might be useful, however replicability would be an issue. What are the implications of these neuropsychological assessments, clinically and legally? Assessment is conducted, despite limitations. With the scarcity of transgender-specific normed statistics, the field could utilize the best practices available and use non-gender-stratified norms. The gender specific norms have far-fetched implications for legalities and health care. It is our responsibility to fill in existing gaps and provide best practices, with strategic goals. In addition, comprehensive detailed history and mental state examination would add value without compromising the responses which could be influenced by gender or by normative standards. We would like to highlight, the need for standardized assessments and comprehensive bio- psycho – social management that are culturally sensitive and ecologically validated.

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Letter to the Editor

"It's Plain Simple Logic"

Roopesh BN*

This letter is a response to the Letter to the Editor titled 'Shooting a Straw Man', published in this journal having reference as Kapur M. (2020). Shooting a Straw Man, Indian J Clin Psychol. 47(1),90-91. This letter tried to derelict my 'VSMS' article published in the previous issue.

It was a shock to read the article. Not because it criticized an article of mine, but for the content of it. The letter's content appears to be having an unscientific approach, used unrelated facts, and was devoid of simple logic.

First, I thought, there is no need to respond to this letter and let my VSMS article speak for itself, because currently the article has seen about 30,000 (thirty thousand) reads on ResearchGate and has been appreciated by hundreds of students for clarifying the important concepts. However, I chose to respond to the letter, because there might be some young professional/student, who might merely go by the words of a senior professional rather than actually looking at its merit/demerit.

Here are my responses to / comments about the 'shooting a straw man (SSM)' letter. To reduce the word limit, in this letter the author of the above letter will be referred to as 'author of SSM'.

1. Response to point 1:
    a. I thank the author of SSM for providing a little history about VSMS. However, if the above author had read my VSMS paper properly, she would have realized that it was never about the history of VSMS.
    b. It is shocking to see that the author of SSM suggests that if one points out any mistakes in tests, then they have to develop and standardize a new test. This is shocking because of few reasons. (i) One cannot say that a reviewer who finds mistakes in an article should not point them out but instead s/he has to do the same research. If that is the case, author of SSM is indirectly implying that there is no need for any reviewer for/of any study/research/test (ii) It actually conveys that reviewers don't have a right to point mistakes (iii) The author of SSM might know that science progresses through critical evaluation and correcting any mistakes. For example, if neo-Freudians, behaviorists, cognitive therapists and so on would not have questioned Freud and would not have found issues in his therapeutic approach and/or would have completely accepted his approach as 'the' approach and nothing else/more, then no other/new therapy would have come into existence (iv) Standardization is not easy. Just because one cannot standardize a new test/new scoring, it does not mean that professionals have to accept the faulty test/scoring system.
    c. Actually, I have done just what the author of SSM asked. She has asked how come the younger generation like this author has not come up with a better version. Actually, I have come up with the solution by showing what the correct way to score is. This author of SSM has conveniently not mentioned at all, anywhere in her comments. If I have to argue in the same way how the author of SSM argued or indicted me of, then I need to ask, after having worked or still working for at least 5 decades in premier institutions in the child and adolescent mental health area, how come the author of SSM has not looked into the scoring confusion about VSMS that had existed for decades and how come she did not come up with any solution to this problem.
    d. She has mentioned Bhatia's and Binet Kamat tests of intelligence. There was completely no need to bring these tests up, because the article being discussed was about VSMS only. However, I have actually published articles about BKT and Bhatia tests, correcting the mistakes and/or suggesting better ways to score and interpret in those tests as well. If the author of SSM is interested she can search for them and read up those articles as well. My BKT article has been read and recommended by prominent (professors in) clinical psychologists on Indian psychology web-email groups.
    e. A reviewer's job is to look at the things critically and not to go soft or to ignore if the mistakes have been committed by fellow professionals or by people in reputed institutions. Anybody can commit mistakes and sometimes even serious mistakes, irrespective of whether they are from reputed institutions. People working in so-called reputed institutes are not different than people working in so-called non-reputed institutes, and the former cannot claim that people should not point out inefficiencies/mistakes, just because they are working in the so-called reputed institutes.
    f. I haven't understood why she had to mention 'except to point out that he is superior to all of them', because, nowhere in my article I have mentioned this. As mentioned above, a reviewer who points out mistakes is not saying that s/he is better than others. It is just the process of critical reviewing.'
2. Response to comment number 2
    a. I completely disagree. I think the author has completely misunderstood the whole concept of standardization. Standardization in intelligence testing is emphasized to avoid different outcomes i.e., different examiners measuring and/or reporting different IQs. It is known that different IQ tests can yield different IQs, but when it comes to one test, it is always emphasized to have one unequivocal result, i.e., unequivocal IQ score. One cannot say, there are 3 versions of VSMS, so each version can give their own different SQs. The author of the SSN

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has to remember that these are different versions (of VSMS) but they all measure the same thing, and that they are not different tests that measure different abilities.

b. The author of the SSN has mentioned about integrating case history, observation of the child, etc. First there was no need to mention this because it is obvious. Second, my article clearly mentions the same in far more detail.

c. The author of the SSN mentions that, 'what kind of cases would benefit optimally by the use of VSMS too eludes the reviewer'. My article clearly mentions these things, and moreover, author of SSM should know that VSMS is used by many students/professionals in almost all types of cases.

d. The author of the SSN mentions that, 'He has compared the scoring methods by illustrating an imaginary case…..'. I am surprised she has mentioned this, because, as mentioned above, it is very basic and common knowledge that VSMS is used extensively in almost all types of cases, including children with speech problems, autism spectrum disorders, cerebral palsy and to some extent even in children with reading and writing problems. So, the illustration was not at all imaginary.

e. The author of the SSN mentions that, 'He could have taken a typical case with IDD for illustration'. I think author of SSM has not understood the article properly. The non-IDD used for the illustrations were actually to show how non-IDD cases will be adversely affected if one uses erroneous scoring system. So, there was no basis to use IDD case.

3. Response to number 3

The author of the SSM mentioned that intelligence peaks at adolescence. Not sure why there was a requirement to mention. Further, she says that authors of the early tests of intelligence, settled on 15/16 years as the higher end. As I am aware there are no popular intelligence test's author who decided on 15 years. That apart, author of SSM further mentions "…it is not true of social development or maturation….". This is exactly what I had mentioned in my article. In addition, author of SSM further mentions that '…whether to equate IQ and SQ further research is needed especially in the older age groups'. I am appalled that the author of SSM is not aware of hordes of studies which equated IQ and SQ, and Doll (1953) himself says that the correlation is around 0.9. If in case she has referred to IQ and SQ with respect to older age group per se, then there is no question about how it arises, because Indian adaptation of VSMS measures social and adaptive functioning till 15 years. On the other hand, if author of SSM is still confused about whether to take 15 or 16 years as the maximum CA, then I request her to look at the very clear examples and illustrations given in my article.

4. Response to number 4 about the mistakes pointed out in the table

I am surprised that the author of SSN who pointed out that there were 11 mistakes in the table. However, about 10 out of 12 errors that author of SSM has pointed out are not even errors/typos, but what was/is actually there in the Malin's manual being used by many students and professionals across the county. I had just mentioned it as it is, for example, the word 'crows', 'signals to go to toilet', 'can differentiate between AM & PM', are actually there in the manual being used across the country and even in the so-called reputed institutions. I am surprised that the author of SSM has not come across this manual, despite having worked in the area/so-called reputed institution for over 3 decades. I can understand how she might have missed it. It might be because sometimes the consultants may not know what version of VSMS different students will be using. Many times, consultant just considers the SQ reported by the students, and the former might not check each item of the VSMS. Only if they check each item, they might know that different items exist in different manuals.

The author of SSM further shows intolerance to evaluation by using the word, 'galling'. I had to look it up in the dictionary to know what the word meant. The word means 'irritating/annoying'. I am not sure what is there to get so irritated about. I was being frank and honest in mentioning that the manual was not available and that my deductions in my article were based on what was available among different institutions/professionals. I did not have to look into the manual, because my article mainly compared two scoring systems that were being used across India. Therefore, my article just did what it was supposed to do. What the author of SSM should be actually worried about is how come hundreds of professionals are using Malin's version without the manual actually being available.

5. Response to the comment number 5

This comment is completely off limits and is not related to my article at all. The author of SSM mentions a study that said '30 million-word gap in 0-3 years old between the professional and working class families…….". I am surprised as to what the relation of this study is to my VSMS article, where I mainly dealt with scoring differences and tried to highlight the correct administration, scoring and interpretation practice.

6. Response to the comment number 6

It was not merely a claim, it is indeed to spread the knowledge. It made aware to the students and professionals that there were scoring confusion and errors, that there were two different types of scoring, and that there are erroneous administration and inappropriate interpretation practices. The article has garnered about 9000 downloads. Even if 50% of the downloads have been fully read, it amounts to 4500 people fully reading the article. Hundreds of people have appreciated the article and none have told it was useless.

The author of SSM further mentions, that '…… it would be better of reporting his own research'. I am shocked again that the author of SSM has not understood the importance of process of critical review. A Clinical psychologist is

considered as a 'scientist and practitioner'. So, the author of SSM should NOT blindly follow what is there. The author of SSM needs to critically evaluate what is right and what is wrong before using it.

The author of SSM further reports that '…revising important and useful old tests and providing new norms is the responsibility of the younger generation….'. I partially agree with her that old and useful tests need revision, but will not agree with that only younger generation has to do it. I believe that it is everybody's responsibility to do that. The so-called older generation cannot escape their duties just by passing the buck to the younger generation. Whoever is active in academics can do it. On the other hand, author of SSM should have known that only if critical reviewers point out the mistakes, other people will take up the job of developing and revising the norms. So here, I have done my bit, and I ask the authors of SSM about their efforts on this vital assessment related concern which has been missed by numerous professionals inclusive of the author of SSM.

The author of SSM further adds that '…. The utility of the test is finally judged by the posterity by the number of professionals who use it to help their client. The Rorschach Ink Blot test celebrates its centenary in Germany this year', and asks the author of VSMS whether he has any comments on this. Yes, I partially agree about it. But however, I don't want to be complacent, because sometimes due to lack of proper alternative tests, some tests keep being used, and so just because it is used widely does not mean that it is foolproof. About the comments/questions of author of SSM about Rorschach, well I don't want to comment on that because it is totally unrelated to the issue being discussed.

7. Comments about a reference used by the author of SSM

I am not sure what to say for this. This remark apparently suggests that the author of SSM does not evaluate the research critically and this is evident and substantiated by the copying my exact reference along with the error. My VSMS article had only 3 references and my first reference had/s a typo (which I noticed now). That is, the word 'Mysore', had been erroneously been typed as 'Mya' in my article reference. The author of the SSM has just copied this reference as it is, i.e. reference in the SSM article also has the same mistake as 'Mya'. Thus, it may be viewed as that the author of SSM likely has unwillingness for critical evaluation itself which is necessary for research.

In conclusion

The author of SSM should know that critical comments mean critiquing both positives and negatives. However, she has completely ignored the positive aspects of the VSMS article which have been appreciated my many fellow professionals. Thus, the author of SSM appears to have not taken the balanced perspective while evaluating the article.

I would like to conclude my reply by discussing about the choice of the title chosen by the other author i.e., 'Shooting the Straw Man'. For a novice it sounds some full technical and great, but not sure how many are aware of its meaning. I did not know what it meant, and hence looked to Google for answers. The author of this letter should know that when writing for others, one should use simple well-known words/language and avoid flowery and confusing language.

This is in a way an ironic title as the author of SSM inadvertently committed the very same fallacy which the author of SSM was claiming to highlight in my article. *Actually,* author of SSM *is by herself shooting the straw man*! because all the arguments brought up by the author of SSM are actually based on irrelevant, unscientific and unsubstantiated grounds such as typos and talking about 30-million-word gaps, Rorschach test and so on. The author of SSM completely has ignored the fundamental basis of my VSMS article.

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Dr. P.M. Mathew (1933-2020)

Panakkathaze Mathai Mathew (Jan.1933-Sept.2020) popularly known as Dr. P.M. Mathew Vellore, the most cited and popular Clinical Psychologist and Columnist of Kerala left us for his heavenly abode on 28th September, 2020 due to age related illness. He was 87. He leaves behind wife Susy Mathew, Son Dr. Sajjan, daughters Dr. Leba and Lola. He obtained his master's degree and Ph.D. from Kerala University and DM&SP from the prestigious National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore. He started his career as Clinical Psychologist in CMC, Vellore. On return from Vellore; he started a Psychotherapy Centre at Thiruvananthapuram where he worked until he fell ill. He sufficed Vellore to his name when he began to write columns in magazines, periodicals and popularized psychology through media from the 1970s.

Dr. P. M. Mathew took the leadership in popularizing psychological treatment in Kerala. He was a multidimensional personality. His abilities did not comprise only in treatment of mental illnesses but was actively involved in writing articles, books, working in TV Serial's, cinema etc. The psychology column he handled in Malayala Manorama Weekly ``Ask to a Psychologist'' had fascinated a lot of readers in Kerala. This question - answer session column reflected the then mental health problems of common people in Kerala. His question- answer columns in popular magazines have contributed to increasing the psychological awareness among the public, brightening the image of Clinical Psychologists as Professionals and improved the acceptance of psychological treatment in the society. Reading his writings many youths were attracted to a career in psychology. He was the founder editor-in-chief of two well reciprocated, popular Malayalam periodicals, Manasasthram and Kudumbhajeevitham.

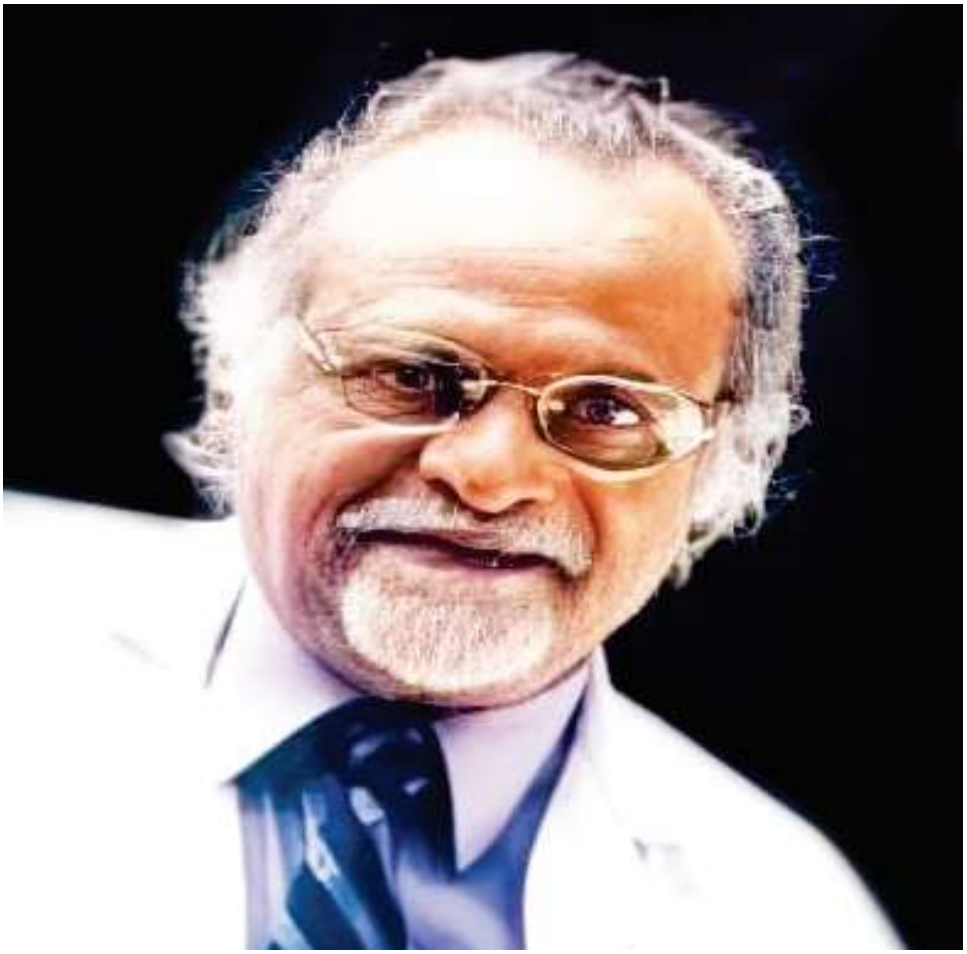
He was also the author of around 20 books on Psychology. The book Rathivijanakosam, an encyclopedia written by him is considered by many as a reference book on the subject in Malayalam language. He also acted in 3 films Ee kannikoodi of KG George (1990), Nizhalkuth of Adoor Gopalakrishnan (2002) and Rathrimazha of Lenin Ranjendran (2007). All these directors are internationally recognized and getting an opportunity of acting in their films itself is a huge recognition of his talent.

The great clinical psychologist personality Dr. P. M. Mathew Vellore has laid his undeletable signature in the history of Kerala psychology. We have known him personally from the very beginning of our career. He was influential in choosing psychology as a career for many youths in Kerala. His French beard is portrayed as a symbol of a psychologist in Kerala. He shines like a LightHouse in the history of Kerala Psychology.

Our professional clinical psychology community lost a pillar. He will always be remembered affectionately by all the Clinical Psychologist of the country for his contribution to the discipline.

Let the Almighty give him eternal rest.

With inputs from,
Dr. P.T. Sasi & Dr. E.D. Joseph: Editor



Panakkathaze Mathai Mathew-(1933 - 2020)

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