Cognitive Schemas among Mental Health Professionals and Other Health Professionals

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ABSTRACT

Objective: Research has demonstrated that dysfunctional cognitive schemas among mental health professionals (MHPs) may influence the ability to process clients’ information in an unbiased manner, may be a substantial source of error in psychotherapeutic ratings, hinder accurate reporting of clients’ cognitive schemas, and have a detrimental effect on therapeutic alliance. The present study compared cognitive schemas among MHPs and other health professionals (OHPs).

Materials and Method: A sample of 128 professionals (64 MHPs and 64 OHPs) was chosen using a purposive sampling technique. The study used a cross-sectional observational research design. The Young Schema Questionnaire Short Form 3rd version was administered on the consenting participants. Results: OHPs had higher maladaptive schemas in the domains of abandonment and defectiveness. Overall, males had more maladaptive schemas in the domains of abandonment, mistrust, entitlement/superiority, admiration/recognition seeking, and emotional inhibition. Among MHPs, a weak positive correlation of years of experience with vulnerability to harm or illness was seen. Among other health professionals, a significant but weak positive correlation of age with admiration/recognition seeking was seen. Conclusion: This study highlights the presence of maladaptive schemas in health professionals and the need for incorporation of training modules to address these.

Key words: Cognitive schemas, health professionals, mental health professionals

Key messages: The present study found more maladaptive schemas in other health professionals as compared to mental health professionals. This understanding shall aid in the development of measures incorporated during the training period, resulting in better therapeutic competence of the health professionals.
A considerable amount of studies demonstrate the presence of maladaptive cognitive schemas as a potential vulnerability factor in the development of psychological problems and psychopathology or psychiatric disorders. While many types of research have been conducted on patient populations, attention has seldom been directed toward studying cognitive schemas among mental health professionals (MHPs). Ideally, MHPs who are in close contact with clients should have little or no maladaptive schemas as these are likely to prejudice or bias their responses and/or affect the treatment quality provided by them.

In the mental health profession, with regard to psychotherapy, therapist and client collaborate to attain mutually agreed upon goals in order to retard, modify, or alleviate distress symptoms suffered by the patient/client. The therapeutic process promotes subjective experiencing of both partners and continuously generates new patterns of self- and interactional regulation. Dysfunctional cognitive schemas may create cognitive risk among MHPs and influence their ability to process patients’ information in an unbiased manner. This may be a substantial source of error in psychotherapeutic ratings. Further, psychotherapists may have discrepancies in reporting cognitive schemas of clients. For the therapist to be able to provide and productively contribute to this relational space—that is, to effectively contribute to potential corrective experiences in his or her clients—it could be argued that certain forms of therapeutic competence and emotional maturity are keys.

There has been only one study on cognitive schemas in trainee MHPs. The participants included trainee MHPs of both genders, in a tertiary postgraduate training institute (n = 100) in India. The results on Young Schema Questionnaire Short Form 2 (YSQ-2) indicated that males had higher maladaptive schemas across all schema domains, viz., disconnection/rejection, impaired autonomy, impaired limits, other-directedness, and over-vigilance. Further, psychiatrists had higher maladaptive schemas than psychologists, and age was weakly but positively correlated with the schema of self-sacrifice and unrelenting standards. This study, however, had limitations, such as it was conducted only among the mental health trainees belonging from the same tertiary postgraduate training institute. However, we proposed to do the first ever study on comparing the early maladaptive schemas (EMS) on MHPs (already trained and not undergoing training at present) and other health professionals (OHPs) (a sample not included in the above-mentioned study). Including a comparison group is likely to yield more information and further, studying cognitive schemas among professionals is critical as trainees, in the process of training, are likely to undergo experiences that may change their patterns of thinking and behaving. However, the schemas among professionals may be more stable and resistant to change.

Thus, it was imperative to study the cognitive schemas of MHPs in order to further intervene in this regard to ensure maximum competence by the MHPs, resulting in client’s improvement. Our objective was to study OHPs and compare the cognitive schemas in MHPs and OHPs. We hypothesized that there would be higher rates of maladaptive schemas among OHPs as compared to MHPs.

**MATERIALS AND METHODS**

After receiving the approval from Institutional Ethics Committee, qualified professionals, including both mental health (qualified professionals working in a clinical mental health care setting) and other health (qualified professionals working with patients with medical illnesses), of either gender, working in a clinical health care setting were approached and explained the nature of the study. At N = 128, the effect size is medium (0.5), 𝛼 = 0.05, power = 0.80 (64 MHPs and 64 OHPs). Purposive sampling was done owing to the limited number of available and accessible MHPs. Health professionals working in various tertiary care centers were approached face-to-face and explained the nature of the study. A total of 138 professionals were approached, out of which 10 declined to participate. Six reported that the schema questionnaire incorporated personal questions they did not wish to answer, three reported lack of time as the reason, and for one professional, the reason was unknown.

Each participant who consented to participate signed a written informed consent after reading the information sheet and clarifying any doubts. Thereafter, he/she was requested to give his/her socio-demographic information including age, sex, marital status, educational qualification, current specialty, years of experience, and then complete the research tool, i.e., Young Schema Questionnaire Short Form 3rd edition (YSQ-S3). The YSQ was developed by Jeffery E. Young in 1990. YSQ-S3, a 90-item self-report questionnaire, is scored on a six-point Likert scale. It assesses 18 maladaptive schemas divided into five domains, namely disconnection and rejection, impaired autonomy and performance, impaired limits, other-directedness, over-vigilance, and inhibition. The YSQ-S3 has also been shown to have good internal consistency, a supported factor structure, and solid construct validity. All data were coded by an ID number and saved in password-protected files, and strict confidentiality was maintained. Statistical analysis and comparison of the data were done using...
mean, standard deviation, Chi-square and Student’s t-test at an α value of 0.05.

RESULTS

The sample comprised 128 participants of whom 64 were MHPs and 64 were OHPs. The two groups differed significantly on age, years of experience, and male/female ratio. On the cognitive schemas, a significant difference was seen between MHPs and OHPs on the subdomains of abandonment and defectiveness/unlovability. No significant difference was found between MHPs and OHPs among any other domains [Table 1].

Upon analysis across gender, a significant difference was seen between males and females, with males having more maladaptive schemas than females in the subdomain of abandonment, mistrust, entitlement/superiority, admiration/recognition seeking, and emotional inhibition [Table 2]. Among MHPs, no significant difference was found between males and females on any of the domains of EMS [Table 3]. Among OHPs, a significant difference was seen between males and females with males having more maladaptive schemas than females in the subdomains of mistrust, self-sacrifice, admiration/recognition seeking, and unrelenting standards [Table 4].

Results indicated a significant but weak negative correlation of age with social isolation/alienation. No significant correlation was found between years of experience and EMS. Among MHPs, results indicated a significant but weak positive correlation of years of experience with vulnerability to harm or illness. No significant correlation was found between age and EMS. Among OHPs, results indicated a significant but weak positive correlation of age with admiration/recognition seeking. No significant correlation was found between years of experience and EMS [Table 5].

DISCUSSION

The present research was aimed to study and compare cognitive schemas in MHPs and OHPs. Results indicated that OHPs had significantly higher maladaptive schemas in the domains of abandonment and defectiveness/unlovability. People with abandonment schema perceive that the presence of important people in their life is unlikely as they are emotionally unpredictable, they are only present erratically, they will die, or they will leave the person for someone better. People with defectiveness/shame schema feel that they are flawed, bad, inferior, or worthless and that they would be unlovable to others if exposed. As these represent commonly held irrational beliefs, it can be hypothesized that health professionals working in a mental health setting with their good knowledge of concepts of irrational beliefs may be better able to modify or restructure their own distorted perceptions or views about oneself, others and the world during their training and work experience.

On the other hand, OHPs are unlikely to undergo any similar experience and lack insight into these
psychological constructs and concepts. This hypothesis of self-restructuring of cognitive distortions of MHPs has previously been described in the process of “schema healing” in health workers.\[9,10\] A model proposed that individuals are (unconsciously) driven to occupations with similar dynamics and structures to those “toxic” environments and relationships that they experienced during childhood, with the aim of healing their EMS and the maladaptive coping strategies that resulted from them.\[11\] The intense interpersonal nature of health care work provides the ideal environment for the perpetual “re-enactment” of these EMS and maladaptive coping strategies to take place. The results of present study are consistent with the process of schema healing in the sense that the common distortions of abandonment and defectiveness/unlovability are rectified among MHPs when clinicians witness events and/or environment in which their schemas can be re-enacted, resulting in the process of schema healing.

Results of the study indicated that there was no significant difference between the maladaptive

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Table 2: Comparison of EMS among males (n=79) and females (n=49) in both MHPs and OHPs

| EMS                                      | Males | Females | t   | P    |
|------------------------------------------|-------|---------|-----|------|
| Disconnection and rejection              |       |         |     |      |
| Abandonment                              | 2.23±0.90 | 1.89±0.71 | 2.23* | 0.03 |
| Mistrust                                 | 2.31±0.80 | 1.91±0.67 | 2.95** | P<0.01 |
| Emotional deprivation                    | 2.22±2.84 | 1.71±0.79 | 1.23 | 0.22 |
| Social isolation/alienation              | 2.27±1.02 | 2.09±0.67 | 1.12 | 0.27 |
| Defectiveness/unlovability               | 1.87±0.85 | 1.73±0.57 | 1.49 | 0.14 |
| Impaired autonomy and performance        |       |         |     |      |
| Practical incompetence/dependence       | 1.75±0.68 | 1.73±0.57 | 0.16 | 0.87 |
| Vulnerability to harm or illness         | 1.83±0.70 | 1.70±0.62 | 1.041 | 0.30 |
| Enmeshment                               | 2.06±0.70 | 1.99±0.71 | 0.57 | 0.57 |
| Failure to achieve                       | 1.91±0.92 | 1.88±0.68 | 0.21 | 0.84 |
| Impaired Limits                          |       |         |     |      |
| Entitlement/superiority                  | 3.33±2.38 | 2.41±0.92 | 2.25* | 0.03 |
| Insufficient self-control/self-discipline| 2.67±0.87 | 2.58±0.84 | 0.57 | 0.57 |
| Other-directedness                       |       |         |     |      |
| Subjugation                              | 2.27±0.78 | 2.22±0.75 | 0.32 | 0.75 |
| Self-sacrifice                           | 3.27±1.02 | 3.02±0.92 | 1.42 | 0.16 |
| Enmeshment                               | 2.84±0.89 | 2.39±0.89 | 2.79** | <0.01 |
| Failure to achieve                       | 1.76±0.83 | 1.84±0.65 | −0.44 | 0.66 |
| Over-vigilance and inhibition            |       |         |     |      |
| Pessimism/worry                          | 2.42±0.78 | 2.22±0.71 | 0.91 | 0.35 |
| Emotional inhibition                     | 2.82±0.83 | 2.41±0.92 | 2.61** | 0.01 |
| Unrelenting standards                    | 3.378±0.87 | 3.10±0.97 | 1.69 | 0.09 |
| Self-punitiveness                        | 2.76±0.98 | 2.49±0.89 | 1.59 | 0.11 |

*Significant at the 0.05 level; **Significant at the 0.01 level; EMS – Early maladaptive schemas; MHPs – Mental health professionals; OHPs – Other health professionals.

Table 3: Comparison of EMS among males (n=31) and females (n=33) in MHPs (N=64)

| EMS                                      | Males | Females | t   | P    |
|------------------------------------------|-------|---------|-----|------|
| Disconnection and rejection              |       |         |     |      |
| Abandonment                              | 2.07±0.91 | 1.84±0.72 | 1.10 | 0.28 |
| Mistrust                                 | 2.25±0.79 | 1.96±0.76 | 1.49 | 0.14 |
| Emotional deprivation                    | 1.81±0.76 | 1.60±0.84 | 0.82 | 0.42 |
| Social isolation/alienation              | 2.26±1.09 | 2.08±0.60 | 0.82 | 0.42 |
| Defectiveness/unlovability               | 1.69±0.71 | 1.59±0.58 | 0.63 | 0.53 |
| Impaired autonomy and performance        |       |         |     |      |
| Practical incompetence/dependence       | 1.75±0.68 | 1.69±0.56 | 0.37 | 0.71 |
| Vulnerability to harm or illness         | 1.75±0.71 | 1.65±0.67 | 0.54 | 0.59 |
| Enmeshment                               | 2.00±0.76 | 1.89±0.76 | 0.59 | 0.56 |
| Failure to achieve                       | 1.76±0.83 | 1.84±0.65 | −0.44 | 0.66 |
| Impaired limits                          |       |         |     |      |
| Entitlement/superiority                  | 3.70±3.51 | 2.49±0.79 | 1.92 | 0.06 |
| Insufficient self-control/self-discipline| 2.79±0.87 | 2.51±0.90 | 1.29 | 0.20 |
| Other-directedness                       |       |         |     |      |
| Subjugation                              | 2.42±0.84 | 2.23±0.86 | 0.89 | 0.38 |
| Self-sacrifice                           | 3.23±0.93 | 3.23±0.88 | −0.02 | 0.99 |
| Enmeshment                               | 2.81±0.81 | 2.45±0.79 | 1.82 | 0.07 |
| Failure to achieve                       | 1.76±0.83 | 1.84±0.65 | −0.44 | 0.66 |
| Over-vigilance and inhibition            |       |         |     |      |
| Pessimism/worry                          | 2.28±0.72 | 2.19±0.79 | 0.45 | 0.65 |
| Emotional inhibition                     | 2.75±0.84 | 2.39±0.97 | 1.58 | 0.12 |
| Enmeshment                               | 3.39±0.92 | 3.21±1.01 | 0.72 | 0.47 |
| Failure to achieve                       | 2.69±0.97 | 2.53±0.97 | 0.68 | 0.50 |

EMS – Early maladaptive schemas; MHPs – Mental health professionals.
schemas of MHPs and OHPs across all other domains, namely mistrust, emotional deprivation, social isolation, practical incompetence/dependence, vulnerability to harm or illness, enmeshment, failure to achieve, entitlement/superiority, insufficient self-control/self-discipline, subjugation, self-sacrifice, admiration/recognition seeking, pessimism/worry, emotional inhibition, unrelenting standards, and self-punitiveness. It can be hypothesized that similarities in the training of MHPs and OHPs in a clinical setting may influence thinking and behavior among health professionals in a similar way. However, this is not supported by any previous research and requires further research.

**EMS among males and females**

Our findings further indicated that, upon analysis of gender differences in the total sample, male professionals had higher maladaptive schemas when compared to female professionals in the domains of abandonment, mistrust, entitlement/superiority, admiration/recognition seeking, and emotional inhibition. Similar results were observed upon subgroup analysis for OHPs. Among OHPs, males had significantly higher maladaptive schemas in the domains of abandonment, mistrust, entitlement/superiority, admiration/recognition seeking, and emotional inhibition when compared to females.

### Table 4: Comparison of EMS among males (n=48) and females (n=16) in OHPs (N=64)

| EMS                        | Males Mean±SD | Females Mean±SD | t     | P    |
|----------------------------|---------------|-----------------|-------|------|
| Disconnection and rejection |               |                 |       |      |
| Abandonment                | 2.34±0.88     | 2.01±0.66       | 1.35  | 0.18 |
| Mistrust                   | 2.35±0.81     | 1.81±0.45       | 2.57**| 0.01 |
| Emotional deprivation      | 2.49±3.58     | 1.84±0.67       | 0.72  | 0.48 |
| Social isolation/alienation| 2.28±0.98     | 2.11±0.83       | 0.63  | 0.53 |
| Defectiveness/unlovable    | 1.99±0.92     | 1.83±0.66       | 0.67  | 0.51 |
| Impaired autonomy and performance |         |                 |       |      |
| Practical incompetence/dependence | 1.75±0.69   | 1.81±0.60       | −0.33 | 0.75 |
| Vulnerability to harm or illness | 1.88±0.70   | 1.79±0.53       | 0.46  | 0.65 |
| Enmeshment                 | 2.10±0.65     | 2.19±0.56       | −0.50 | 0.62 |
| Failure to achieve         | 2.00±0.96     | 1.95±0.77       | 0.20  | 0.84 |
| Impaired limits            |               |                 |       |      |
| Entitlement/superiority    | 3.09±1.18     | 2.64±0.62       | 1.46  | 0.15 |
| Insufficient self-control/self-discipline | 2.59±0.87   | 2.73±0.73       | −0.57 | 0.57 |
| Other-directedness         |               |                 |       |      |
| Subjugation                | 2.17±0.74     | 2.20±0.49       | −0.17 | 0.87 |
| Self-sacrifice             | 3.30±1.08     | 2.59±0.85       | 2.40* | 0.02 |
| Admiration/recognition-seeking | 2.85±0.96   | 2.25±1.07       | 2.12* | 0.04 |
| Over-vigilance and inhibition |           |                 |       |      |
| Pessimism/worry           | 2.51±0.81     | 2.29±0.53       | 1.02  | 0.31 |
| Emotional inhibition       | 2.86±0.82     | 2.45±0.83       | 1.73  | 0.09 |
| Unrelenting standards      | 3.37±0.84     | 2.87±0.86       | 2.07* | 0.04 |
| Self-punitiveness          | 2.81±0.99     | 2.41±0.74       | 1.46  | 0.15 |

*Significant at 0.05 level, **Significant at 0.01 level, EMS – Early maladaptive schemas; OHPs – Other health professionals

### Table 5: Correlation between age and years of experience with domains of EMS in both MHPs and OHPs

| EMS                        | MHPs and OHPs Age | MHPs and OHPs Years of experience | MHPs Age | MHPs Years of experience | OHPs Age | OHPs Years of experience |
|----------------------------|-------------------|-----------------------------------|----------|--------------------------|----------|--------------------------|
| Disconnection and rejection |                   |                                   |          |                          |          |                          |
| Abandonment                | −0.17             | −0.13                             | −0.13    | −0.06                    | −0.12    | −0.15                    |
| Mistrust                   | −0.06             | 0.04                              | 0        | 0.12                     | −0.17    | −0.03                    |
| Emotional deprivation      | 0.019             | 0                                 | 0.14     | 0.14                     | 0.10     | 0.12                     |
| Social isolation/alienation| −0.18*            | 0.00                              | −0.21    | −0.09                    | −0.19    | 0.37                     |
| Defectiveness/unlovable    | −0.07             | −0.07                             | −0.03    | 0.13                     | 0.02     | 0.12                     |
| Impaired autonomy and performance |           |                                   |          |                          |          |                          |
| Practical incompetence/dependence | 0              | 0.02                              | 0        | 0.04                     | 0.04     | 0.07                     |
| Vulnerability to harm or illness | 0.09             | 0.14                              | 0.19     | 0.27*                    | 0.02     | 0.13                     |
| Enmeshment                 | −0.09             | −0.08                             | −0.10    | −0.05                    | 0.10     | 0.12                     |
| Failure to achieve         | 0.03              | 0.07                              | 0.058    | 0.16                     | 0.11     | 0.17                     |
| Impaired limits            |                   |                                   |          |                          |          |                          |
| Entitlement/superiority    | 0.07              | 0.10                              | 0.38     | 0.40                     | −0.23    | 0.03                     |
| Insufficient self-control/self-discipline | −0.06       | −0.02                             | −0.08    | −0.02                    | −0.04    | −0.14                    |
| Other-directedness         |                   |                                   |          |                          |          |                          |
| Subjugation                | 0.04              | 0.07                              | 0.02     | 0.05                     | −0.03    | −0.04                    |
| Self-sacrifice             | 0.02              | 0.04                              | 0.06     | 0.05                     | −0.10    | −0.07                    |
| Admiration/recognition-seeking | −0.05           | 0.02                              | 0.07     | 0.11                     | −0.27*   | −0.16                    |
| Over-vigilance and inhibition |               |                                   |          |                          |          |                          |
| Pessimism/worry           | −0.10             | −0.06                             | −0.05    | 0                        | −0.08    | −0.03                    |
| Emotional inhibition       | −0.02             | 0.01                              | 0.05     | 0.07                     | −0.10    | 0.05                     |
| Unrelenting standards      | 0.06              | 0.12                              | 0.12     | 0.14                     | −0.11    | 0.10                     |
| Self-punitiveness          | 0.07              | 0.13                              | 0.17     | 0.23                     | −0.10    | −0.03                    |

*Significant at the 0.05 level, EMS – Early maladaptive schemas; MHPs – Mental health professionals; OHPs – Other health professionals
higher maladaptive schemas in the domains of mistrust, self-sacrifice, admiration/recognition seeking, and unrelenting standards.

The previous researchers have studied cognitive schemas in university students and people with a history of substance abuse, while our study included health professionals. Previous studies report mixed evidence with respect to the presence of higher maladaptive cognitive schemas across males and females. While some studies report higher maladaptive schemas among males scattered across domains of entitlement, mistrust/abuse, dependence/incompetence, insufficient self-control/discipline, failure to achieve, dependence on others, vulnerability to harm or relational enmeshment, over-vigilance among trainee MHPs.

The difference in our findings as compared to the findings of previous research could be possibly due to the difference in the population of university students and health professionals. In addition, we assume that the difference in the EMS in terms of gender may be attributed to the reflection of role expectations of both the genders. Researchers have claimed that stereotypes about men emphasize traits of autonomy and efficacy, whereas stereotypes about women stress on social relations. Another research emphasized that male role promotes self-interest, self-assertion, and self-protection and places less emphasis on relationships with others, while female role fosters community and other interests, with less of a focus on agency and self-development. Thus, it may be inferred that the difference in maladaptive schemas among males and females results from the different gender roles assigned by one’s culture.

Upon subgroup comparison among MHPs, no significant difference was found between males and females on any of the domains of EMS. A previous research found higher maladaptive schemas among males when compared to females across all schema domains, including disconnection/rejection, impaired autonomy, impaired limits, other-directedness, and over-vigilance among trainee MHPs. We propose that the different findings in the previous study possibly reflect the difference in the population of health professionals. Although this study assessed cognitive schemas among mental health trainees, our study looked at professionals pursuing clinical practice after successful completion of their training.

Relationship of EMS with age

The research findings also indicated a weak negative correlation of age with social isolation/alienation in the total sample. This is a contradictory finding among health professionals, as various studies have demonstrated that older people are particularly vulnerable to social isolation and the resultant loneliness impacts their health, well-being, and quality of life. It can be hypothesized that an inverse relation in social isolation and age in health professionals could result from the demanding environment of professionals during their training, which allows little time to interact with others. However, with age, their social interaction and involvements tend to be better.

Additionally, previous research has also indicated that even EMS can be modified by short-term psychotherapy or even community settings. Furthermore, in the workplace, there are multiple social groups with which an individual might identify. Thus, it can also be hypothesized that the health profession provides an avenue to the professionals with a wide variety of social groups with whom the professional may identify and possibly have fruitful interpersonal experiences which therefore lead to a reduction in the schema of social isolation. Among MHPs, no significant correlation was found between age and EMS.

Among OHPs, results indicated a significant but weak positive correlation of age with admiration/recognition seeking. It can be hypothesized that in the Indian setting, there is an excessive emphasis on becoming a doctor as it is seen as a dignified, noble, and superior position in our society. This may lead to some distorted expectations of the profession during the childhood itself. With the kind of beliefs about the health profession as a superior profession, the distorted perceptions are likely to perpetuate and be manifested as a need for recognition within the family as well as others outside the family. However, since we could find no previous study assessing the schemas among health professionals despite an in-depth search, further work needs to be done in this regard before drawing any conclusions.

Relationship of EMS with years of experience

No significant difference between any of the schema domains and years of experience was found in the total sample. When subgroup analysis was done, among MHPs, results indicated a significant but weak positive correlation of years of experience with vulnerability to harm or illness. Previous research has noted not only the inherent nature of stress in psychotherapy but also identified the occurrence of secondary stress symptoms in psychotherapists, especially those who deal with traumatic stress.
Being in a mental health profession, one is exposed to and required to manage emotional turmoil of their patients, which may lead to feelings of vulnerability. Further, we hypothesize that MHPs are exposed to a variety of mental illnesses which may lead to the development or vulnerability of fear of developing an illness themselves. Having seen both genders of different ages suffer from a wide range of illnesses, they realize that no one is immune to these disorders. No significant correlation was found between years of experience and EMS among OHPs.

STRENGTHS AND LIMITATIONS

Strengths
1. To the best of our knowledge, this is the first study on Indian health professionals which compared EMS among MHPs and OHPs, which included a considerably large sample size as well as a comparison group.
2. The study has important implications for the clinical practice by health professionals. In order for the MHPs to be able to provide and productively contribute to potential corrective experiences in their patients, it can be argued that certain forms of therapeutic competence and emotional maturity are key. Our study aimed to compare EMS, which, if present are likely to affect the treatment quality provided by MHPs.

Limitations
1. The results of the study are preliminary because of the cross-sectional design and use of purposive sampling method.
2. The measure of schema was a self-report questionnaire that is subject to bias, demand characteristics, social desirability, and response sets, all of which affect the validity of the findings. Further, MHPs are very likely to be familiar with the construct being measured and the tool used in our study which could have led to an element of bias.
3. The questionnaire could not be administered to all the participants in the presence of the researcher. Even though the researcher attempted to clarify doubts, some items could have been misunderstood.
4. There was a disproportionately higher percentage of males in the sample. The inequality in sample size regarding gender could limit the generalizability of the findings.
5. The number of participants in each specialty was also unequal, which limited us to carry out subgroup comparisons.
6. The YSQ-S3 gives raw scores and mean scores for each subscale. The higher the score, the more maladaptive is the schema. In the absence of any cut-off score, no meaningful interpretation regarding the two groups could be made.
7. The number of hypothesis testing was not controlled, which may have increased the probability of chance associations.
8. The study did not include any measures to assess and exclude the health of professionals who may have subclinical or clinically significant anxiety or depressive symptoms. Thus, a possibility of having included a mixed sample cannot be ruled out.
9. Further research is warranted on the impact of maladaptive schemas present in health professionals on their capability to establish an empathic therapeutic alliance with their patients and finally, on the patient satisfaction and overall improvement.

SUMMARY AND CONCLUSION

The present study, to the best of our knowledge, is the first to explore cognitive schemas among health professionals in India. It was hypothesized that there would be no significant difference in the EMS between MHPs and OHPs.

The findings of the study show statistically significant difference among health professionals with OHPs having more maladaptive schemas as compared to MHPs on the domains of abandonment and defectiveness. The findings also indicate that males had more maladaptive schemas as compared to females in the domains of abandonment, mistrust, entitlement/superiority, admiration/recognition seeking, and emotional inhibition. Lastly, the age of health professionals was weakly negatively correlated to social isolation. Among MHPs, results indicated a weak positive correlation of years of experience with vulnerability to harm or illness. Among OHPs, results indicated a significant but weak positive correlation of age with admiration/recognition seeking.

The current study found comparatively lower EMS (better cognitive schemas) among MHPs as compared to OHPs in India and adds to our understanding about the nature of cognitive schemas among health professionals. Even though there are several limitations, the study offers an opportunity for future studies to advance our understanding of the nature of cognitive schemas among health professionals. This understanding shall aid in the development of measures that can be incorporated during the training period itself, resulting in a better therapeutic competence of the health professionals. Both MHPs and OHPs can undergo suitable, group or individual psychological interventions during their early training years such that the therapeutic process may aid in schema healing and/or alteration of maladaptive schemas.

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Conflicts of interest
There are no conflicts of interest.

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