



Emotional Competence as a Predictor of Mental Health of Science Pre-Service Teachers of Himachal Pradesh, India

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Abstract:

This paper deals with the emotional competence of the science Pre-service teachers of Himachal Pradesh which is mentioned as a predictor of their mental health. By opting the survey method the researcher randomly selected 120 science Pre-service teachers from colleges of education of four districts of Himachal Pradesh. Mental Health Inventory developed by Dr. Jagdish and Dr. A.K. Srivastava (1996) and Scale of Emotional Competency (SEC) developed by H.C. Sharma and R. Bhardwaj used by the researcher to measure emotional competence of Pre-service teachers of science. The findings of the study revealed that Pre-service teachers of science belonging to general and reserved categories were found significantly different in their mental health. The poor score of mental health of Pre-service teachers belonging to reserved category indicates their weakness in qualities like self-confidence, self-acceptance, self-identity, self-realization, acceptance of others and adjustment in different situations. The results of the study further revealed that there is no significant difference in the mental health of high and low emotionally competent Pre-service teachers of science. It shows that emotions do not affect the mental health of Pre-service teachers of science. The valuable suggestions are also mentioned by the researcher for the improving mental health of science Pre-service teachers.

Key words: Mental health, emotional competence, Pre-service teachers, science.

Concept of Mental Health:

Teacher is the main source behind the education of each individual. It is the teacher with sufficient degree of mental health who can maintain the twin requisites of teaching-learning situations, healthy interactions in the classroom and healthy participation by students in lessons. Mental health refers to the full and harmonious functioning of our total personality as well as to our bio-socio-psychological and spiritual well-being. It is related to the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders (Dandapani, S.). Mental health is a term used to describe how well the individual is adjusted to the demands and opportunities of life. Mental health is a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stress of life, can work productively fruitfully and is able to make a contribution to his or her community (The World Health Report, 2001). Coleman defined mental health as “the ability to balance feelings, desires ambitions and ideas in one’s daily livings and to face and accept the realities of life. It is the habit of work and attitude towards people and things that brings maximum satisfaction and happiness to the individuals”. The importance of maintaining good mental health is crucial to living a long and healthy life. Good mental health can enhance one’s life, while poor mental health can prevent someone from living a normal life. According to Richards, Campania, and Muse-Burke (2010) “There is growing evidence that is showing emotional abilities are associated with pro social behaviors such as stress management and physical health.” It was also concluded in their research that people who lack emotional expression lead to misfit behaviors. These behaviors are a direct reflection of their mental health. Therefore, mental health is something we all need. It is a feeling of well-being, happiness, the ability to cope with life’s challenges, to accept others and most of all, to have a

positive attitude towards oneself. Mentally healthy people trust others and enjoy being part of a group as well as being on their own. For them, life is meaningful. However, there is no line that neatly divides the mentally healthy from the unhealthy. There are many degrees of mental health. No single characteristics can be taken as evidence of good mental health and nobody has all the traits of good mental health all the time (mentalhealth.org).

Concept of Emotional Competence:

The concept of emotional competence is rooted in the understanding of emotions as being normal, useful aspects of being human. Emotional competence can lead to improved health through avoiding stress that would otherwise result from suppressing emotions. Emotional competence is the ability to understand, manage and express the emotional aspect of one's life in ways that enable the successful management of life tasks such as learning, forming relationships, solving everyday problems and adopting to the complex demands of growth and development. It is efficiency acquired by the individual to deal with emotional situations effectively. It plays a vital role in the manifestation of human behaviour by which one attempts to deal with different emotive situations and meet his needs including the efforts to maintain a harmonious relationship with the environment. A teacher can perform his real job only when he/she is mentally sound and emotionally stable. According to Sharma, A. (1994) "Emotional competence refers to a person's ability to express or release his/her inner feelings (emotions). It implies an ease around other and determine our ability to effectively and successfully lead and express." Ellis, A. (1987) defines "emotional competence as the ability to understand, manage and express the emotional aspect of one's life in ways that enable the successful management of life tasks such as learning, forming relationships, solving everyday

problems and adopting to the complex demands of growth and development". According to Delphine Nelis (2011) emotional competence (EC) is the ability to understand, manage, express and use emotions. It is a skill that can be learned. There are three levels of EC that affect every area of one's life, knowledge, focus and ability. Knowledge is how much an individual understands about their own emotions. Focus is how well someone is able to manage their emotions and emotional responses. And Ability refers to how a person uses their emotional knowledge to cope with a specific situation in order to achieve a desired outcome. "At a psychological level, higher trait EC is associated with greater well-being and higher self-esteem as well as a lower risk to develop psychological disorders," said Delphine Nelis. Emotional competence is the integrative term for skills that concern the accurate or effective perception, comprehension, regulation, and utilization of affect and affective information. These sub-skills are closely connected and relate to a single higher-order factor. Thus, emotional competence can lead to improved health through avoiding stress that would otherwise result from suppressing emotions. It can also lead to improved relationships since inappropriate emotions are less likely to be expressed and appropriate behaviour is not avoided through fear of triggering some emotion.

Mental Health of the Pre-Service Teacher:

Mental health for a teacher is extremely important not only for his own self but more for the sake of the students under his charge. A mentally unsound teacher is likely to make his students unhealthy. Keeping in view the healthy upbringing of our children, it is very essential that the mental health of the teacher should receive a great attention. For preservation of mental health, or in other words, prevention of mental illness

among teachers, the individual, the institution and the State have to work in co-operation.

According to various research studies if the general conditions at home are favourable on the whole to the development of adjusted behaviour there is less chance of undesirable factors outside the home to dray a child into maladjusted behaviour. At the school the personality of the teachers and association of classmates make quite a lot of difference. Mental health is a term used to describe how well the individual is adjusted to the demands and opportunities of life. The idea of mental health is complex and comprehensive. Mental health may be better understood by its comparison with physical health. A person is said to be physically healthy when his/her body is functioning well and free from pains and troubles. Similarly a person is in good mental health when his/her mind or personality is functioning effectively and is free from emotional disturbances. Mental health of a Pre-service teacher stands for a balance that makes him dynamic. A mentally healthy Pre-service teacher is one who is in harmony with himself in various learning situations and consequently with those around him.

Who Is Mentally Healthy and Emotionally Competent?

Mental health and emotional competence is the ability and quality to accept oneself and others on their personal conditions, adapt to and manage emotional feelings, and help to deal with the demands and challenges of life. Someone who is mentally healthy and emotionally competent can usually handle a wide variety of feelings and situations. S/he can make wise choices that demonstrate both strong values and responsible behavior. The people with good mental health and proper emotional competence demonstrate the following characteristics:

- 1. Positive Self-Esteem:** A person with positive self-esteem is better able to accept the challenges and take failure in stride. S/he manages to make his /her path forward in the positive way.
- 2. Sense of Belonging:** Having emotional attachment to family members, friends, teachers, and other people around one provides comfort and assurance. It promotes stability and makes one feel a part of one's community.
- 3. Sense of Purpose:** Recognizing one's own value and importance enables one to set and achieve goals and engage in the activities that are personally rewarding like working hard in teacher training or in school, participating in sports, or doing social service.
- 4. Positive Outlook:** Seeing the bright side and having hope about life reduces stress and increases one's energy level. It also increases the success rate and able to motivate other-self in a positive direction.
- 5. Autonomy:** Having the confidence to make responsible and safe decisions promotes self-assurance and sense of independence.
- 6. Coping with Environment:** The person is able to adjust or cope with the environment or situation in life. It helps towards positivity.

Review of Related Literature:

The researcher revisited the related literature in order to find the gap and relationship in studies in the interested field. Happell, B.; et. al. (2002) conducted a study on attitudes of postgraduate nursing students towards consumer participation in mental health services and the role of the consumer academic. The findings suggest that most students favour a high level of consumer participation but this is limited to specific areas of treatment planning and delivery. Furthermore, the students demonstrate some level of ambivalence regarding

the value and necessity of the consumer academic role. Thakur, K.S. and Sharma, M. (2009) studied effects of certain demographic variables on mental health of secondary school teachers. The results of the study indicated significant difference in the level of mental health of secondary school teachers serving in tribal and non-tribal areas were also found to differ significantly with respect to their mental health. Pathak and Rai (1993) pointed out that the mental health of low socio-economic status students was lower than male students when SES is controlled. Science students were mentally healthier than arts students. Mental health increases with grade and age. Thakur, K. S. and Kumar, Sanjeev (2013) revealed in their study that prospective teachers of science belonging to general and reserved categories were found significantly different in their emotional competence. The total score obtained by prospective teachers of general category was higher than their counterpart. Male and female prospective teachers of science are found significantly different in their emotional competence. Male prospective teachers of science are found more emotionally competent than their counterpart. Kumar, Sanjeev and Maduewesi, B. U. (2014) found in their study that male and female distance learners were significantly different in the overall mental health scores. The distance learners of B. Ed. and M. Ed. belonging to open category were found high in their Positive Self Evaluation component of Mental Health.

The review of studies conducted in India and abroad revealed that most of the investigations are carried out on the mental health of students and teachers belong to different areas. The mental health of teachers of Primary, Secondary and Higher education level are mainly highlighted areas of the studies, but no study was found on emotional competence as a predictor of mental health. It is very necessary to investigate about the mental health of the teacher-trainees, i.e. Pre-service teachers. Therefore, a little effort has been made by the

investigators to conduct a study on emotional competence as a predictor of mental health of the Pre-service teachers.

Significance of the Study:

In the present time, it has been felt and seen that the teacher of the 21st century is not mentally sound and emotionally stable. There are many factors which are affecting teachers' mental health and emotionality. Job security, facilities, incentives, exploitation, lack of positive attitude, decision making, and working with associated members, unemployment and cultural variations are such factors which are responsible for teachers' poor mental health and instability in the emotions. That is why; taking into consideration these factors, the present study is a nice and wonderful effort to study the emotional competence as a predictor of mental health of Pre-service teachers before entering into teaching profession. In case of poor and average mental health and emotional competence the investigator will try to suggest the means and measures to promote the mental health so that they will become emotionally stable.

Objectives of the Study:

1. To study and compare mental health of Pre-service teachers of science with respect to: a) Social Category b) Gender and c) Emotional Competence.
2. To study and compare double and triple interaction effects of mental health of Pre-service teachers of science with respective to: a) Social Category b) Gender and c) Emotional Competence.

Hypotheses of the Study:

1. Mental health of Pre-service teachers of science do not differ significantly with respect to a) Social Category b) Gender and c) Emotional Competence

2. Mental health of Pre-service teachers of science do not interact significantly with respect to a) Social Category and Gender b) Gender and Emotional Competence c) Social Category and Emotional Competence and d) Social Category, Gender and Emotional Competence.

Method:

The present investigation is a descriptive one in nature. Method is used keeping in view the objectives of the study. It involves the description, recording analysis and interpretation of conditions that now exist (Garrett, H. E., 2006). The investigator collected and provided the type of information of what exists with respect of variables or conditions in a situation.

Descriptive studies may be classified in several ways. Survey is one of the important types of descriptive studies. Survey studies are conducted to collect detailed descriptions of existing phenomena with the intent of employing data to justify current conditions and practices or to make more intelligent plans for improving them. The survey is said to be more realistic than the experiment, in that it investigates phenomena in their natural setting. The researcher preferred and used the method keeping in view the objectives and nature of the study.

Sample:

The present study was carried on 120 Pre-service teachers of science from four districts of Himachal Pradesh in India out of twelve – Shimla, Hamirpur, Una and Mandi. The researcher selected the districts by lottery method of sampling. Three colleges of education were selected from each district conveniently and total 12 colleges of education were taken for collecting the required sample. Then, 10 Pre-service teachers of

science per college were selected by systematic random sampling method. The researcher categorized the selected sample into gender (male and female) and social category (general and reserved). 60-60 Pre-service teachers of science were selected from general and reserved categories in which 30-30 was male and female of each category as shown in Fig. I. The Pre-service teachers belonging to Schedule Caste, Schedule Tribe and Other Backward Classes were selected under reserved category and others were taken as general.

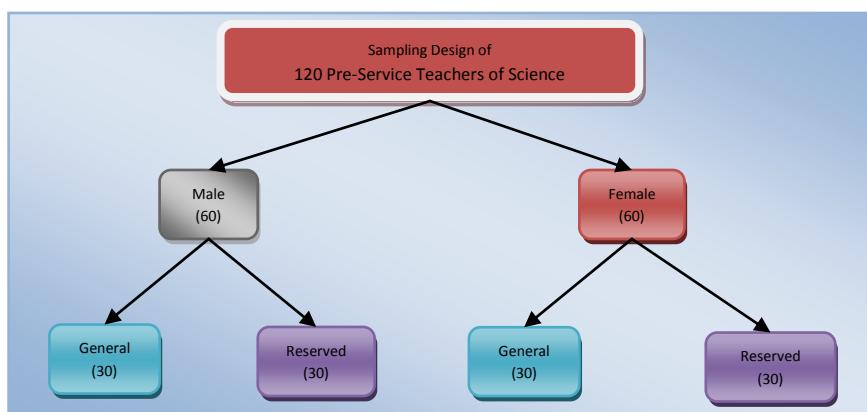


Fig. I: Sampling Design

Tools:

Mental Health Inventory developed by **Dr. Jagdish and Dr. A.K. Srivastava (1996)** was used by the investigator to study mental health of Pre-service teachers of science. The inventory consists of 56 items including 32 false-keyed (negative) [* marked] and 24 true-keyed (positive) statements. The reliability coefficients of different dimensions of MHI were found to be more than 0.70 which was determined by split-half method using odd-even procedure. The reliability coefficient of overall mental health was 0.73. The construct validity of inventory was found to be 0.54. The item wise description of the tool is given in Table 1 as follows.

Table – 1 Item – Wise Description of Mental Health Inventory (MHI)

Sr. No.	Name of the Item	Item number in MHI
1.	Positive Self Evaluation (PSE)	1*, 7*, 13*, 19, 23*, 27, 32, 38, 45, 51
2.	Perception of Reality (PR)	6, 8, 14*, 24*, 35*, 41, 46*, 52
3.	Integration of Personality (IP)	2*, 9*, 15*, 18*, 20, 25*, 28*, 33*, 36*, 40*, 47*, 53*
4.	Autonomy (AUTNY)	3*, 10*, 29, 42*, 48*, 54
5.	Group Oriented Attitude (GOA)	4, 11*, 16*, 21*, 26, 30*, 39, 43, 49*, 55*
6.	Environmental Competence (EC)	5*, 12, 17*, 22*, 31, 34, 37, 44, 50, 56

The investigator also used Scale of Emotional Competency (SEC) developed by **H.C. Sharma and R. Bhardwaj (1998)** to measure emotional competence of Pre-service teachers of science. The EC scale has 30 items to measure five emotional competencies where each competency measured by six items selected for the purpose. The reliability of total emotional competence was 0.76 which was determined by split-half method. The validity of this scale has been determined with factor A and C of 16 -personality factor questionnaire and found to be 0.64 and 0.69 respectively. The item was description is given in Table 2 as follows.

Table – 2 Items – Wise Description of Scale of Emotional Competency (SEC)

Sr. No.	Name of the Item	Item number in SEC
1.	Adequate Depth of Feeling (ADF)	1, 6, 11, 16, 21 and 26.
2.	Adequate Expression and Control of Emotions (AECE)	2, 7, 12, 17, 22 and 27.
3.	Ability to Function with Emotions (AFE)	3, 8, 13, 18, 23 and 28.
4.	Ability to Cope with Problem Emotions (ACPE)	4, 9, 14, 19, 24 and 29.
5.	Encouragement of Positive Emotions (EPE)	5, 10, 15, 20, 25 and 30.

Procedure:

The investigator administered both the tools to all concerned Pre-service teachers personally after establishing perfect

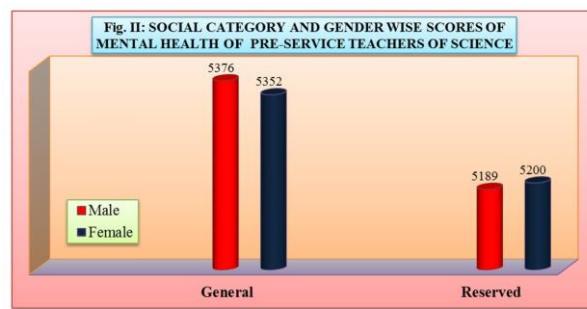
rapport with them asked them to respond correctly and confidently. The item – wise scores were calculated and five items of SEC were added to obtain total emotional competence scores and six items of MHI were added to obtain overall mental health scores which were used by the researcher for analysis.

Results:

The total scores of mental health and emotional competence of all Pre-service teachers of science were obtained and 'F' test was used to find out the significance of difference between the specified groups. The group-wise scores of mental health of the Pre-service teachers of science are given in the Table 3, 4 and 5.

Table – 3 Type of Social Category and Type of Gender WISW Scores of Mental Health of Pre-Service Teachers of Science

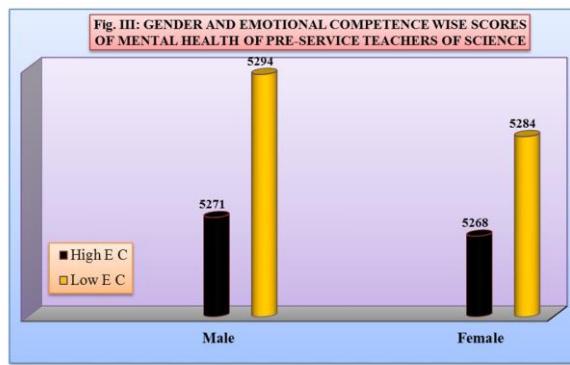
Type of Social Category Type of Gender	General	Reserved	Total
Male	5376	5189	10565
Female	5352	5200	10552
Total	10728	10389	21117



It is clear from Table 3 and Fig. II that mental health score of male Pre-service teachers belonging to general category is highest (score=5376) whereas male Pre-service teachers of reserved category have the lowest mental health score (5189).

Table – 4 Type of Gender and Type of Emotional Competence Wise Scores of Mental Health of Pre-Service Teachers of Science

Type of Gender Type of EC \	Male	Female	Total
High	5271	5268	10539
Low	5294	5284	10578
Total	10565	10552	21117

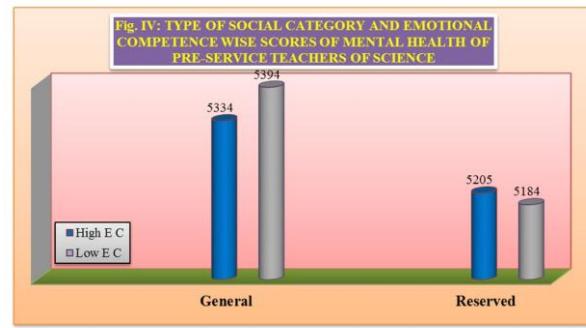


From Table 4 and Fig. III it is clear that mental health of male Pre-service teachers having low emotional competence score is highest (score=5294) whereas female Pre-service teachers of high emotional competence score have lowest mental health score (5268).

It is clear from Table 5 and Fig. IV that Pre-service teachers of general category having low emotional competence score exhibit highest mental health score (5394) whereas Pre-service teachers of reserved category pertaining low emotional competence score have lowest mental health score (5184).

Table – 5 Type of Social Category and Type of Emotional Competence - Wise Scores of Mental Health of Pre-Service Teachers of Science

Type of Social Category Type of EC \	General	Reserved	Total
High	5334	5205	10539
Low	5394	5184	10578
Total	10728	10389	21117



In order to study the main effects of type of Social Category, Gender and Emotional Competence on the mental health scores of sampled Pre-service teachers of science, statistical technique of 'Analysis of Variance' ($2 \times 2 \times 2$, factorial design involving two types of social categories i.e., general and reserved, two levels of gender i.e., male and female and two levels of emotional competence i.e., high and low) was applied on the scores of mental health.

From Table 6, it is clear that the calculated value of 'F' ratio for the main effect of social category of Pre-service teachers of science on their mental health came out to be 20.58 for df 1 and 119, which is significantly higher than the 'F' Table value 6.84 at 0.01 level of significance. Hence hypothesis no. 1 (a) that mental health of Pre-service teachers of science do not differ significantly with respect to social category was rejected. It is evident from Table 2 that general Pre-service teachers of science (score=10728) have higher mental health than their counterpart (score=10389).

Table – 6 Summary Table of Analysis of Variance on Mental Health Scores of Pre-Service Teachers of Science

Source of Variation	Sum of Squares	Df	Mean Square (V)	'F' Value
Social Category	957.67	1	957.67	20.58**
Gender	1.40	1	1.40	0.03
Emotional Competence	12.67	1	12.67	0.27

S/ Category × Gender	10.22	1	10.22	0.22
Gender × E/Competence	0.42	1	0.42	0.01
S/Category × E/Competence	54.68	1	54.68	1.18
S/Category × Gender × E/Competence	9.06	1	9.06	0.19
Error variance	5210.86	112	46.53	----
Total	6256.98	119	----	----

** p<0.01

Further, it is revealed that 'F' ratios for main effects of gender and emotional competence were 0.03 and 0.27 respectively which were found non-significant even at lowest level of confidence 0.05 for df 1 and 119. Hence, hypotheses no. 1 (b) and 1 (c) were retained. Also, from the Table 6, it is evident that the calculated value of 'F' for interaction effect of type of social category × gender, type of gender × emotional competence, type of social category × emotional competence and type of social category × gender × emotional competence of Pre-service teachers of science came out to be 0.22, 0.01, 1.18 and 0.19 respectively for df 1 and 119, which were found non-significant even at 0.05 level of significance. Thus, no interaction effect was found statistically significant even at lowest level of confidence.

Discussion:

The findings of the study revealed that Pre-service teachers of science belonging to general and reserved categories were found significantly different in their mental health. The total score obtained by Pre-service teachers of general category was higher than their counterpart. The poor score of mental health of Pre-service teachers belonging to reserved category indicates their weakness in qualities like self-confidence, self-acceptance, self-identity, self-realization, acceptance of others and adjustment in different situations. The non-significant difference in the mental health of male and female Pre-service teachers of science indicates that both the sexes have the same ability to

face the challenges of the teaching profession. Both are able to make suitable environment in the classroom during their teaching-learning activity.

The results of the study further revealed that there is no significant difference in the mental health of high and low emotionally competent Pre-service teachers of science. It shows that emotions do not affect the mental health of Pre-service teachers of science. They are able to emotionally adjust themselves in the teaching-learning situations. It is concluded from the study that there is no significant double and triple interaction effects found between respective variables.

Conclusion:

Nowadays, the teaching profession is quite challenging. The teacher has to impart the knowledge in the students according to the current status and need of the hour. Thus, the teacher should be mentally healthy and emotionally stable. To promote the mental health of Pre-service teachers to the highest level, some suitable steps should be taken which may help in over-all development of the Pre-service teachers. Also some reformations in the B.Ed. curriculum may be made in order to make the Pre-service teachers more competent and efficient in the teaching-learning process. They may be given chance to interact with each other through workshops and exhibitions which should be organized accordingly. It may help in developing the ability of responsibility and capacity for adjustment in all types of emotional situations. There should be provision in the B.Ed. program for emotional training of the Pre-service teachers so that they can react in the real classroom situations. This may helpful for teachers, administrators, educational planners and concerned authorities for the maximum utilization of making the teaching-learning process more effective.

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