

**A COMPARATIVE STUDY OF MENTAL HEALTH
OF TEACHERS WORKING IN AUTONOMOUS
AND NON-AUTONOMOUS COLLEGES
IN JAMMU CITY**



**A
DISSERTATION SUBMITTED TO THE CLUSTER
UNIVERSITY OF JAMMU IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE AWARD OF DEGREE OF
MASTER OF EDUCATION (M.Ed)**

Supervisor :

Shamboo Nath Manhas

Sr.Asstt. Professor

Investigator :

Monika Katoch

M.Ed Student

Roll.No. - 20051070010

**POST- GRADUATE DEPARTMENT OF EDUCATION
CLUSTER UNIVERSITY OF JAMMU**

JAMMU

2020-2022

CERTIFICATE

This is to certify that **Ms. Monika Katoch** student of M.Ed Semester IV, Session 2020-2022, bearing Roll No. 20051070010 has worked under my supervision for her dissertation entitled “**A COMPARATIVE STUDY OF MENTAL HEALTH OF TEACHERS WORKING IN AUTONOMOUS AND NON-AUTONOMOUS COLLEGES IN JAMMU CITY**” under my supervision and guidance. The dissertation is ready for submission to the Govt. College of Education, Canal Road, Jammu in partial fulfillment of the requirement for the degree of Master of Education.

Supervisor:

Shamboo Nath Manhas

Sr. Assistant Professor

Govt. College of Education,

Canal Road, Jammu

ACKNOWLEDGEMENT

A major research project like this is never the work of anyone alone. The contributions of many different people, in their different ways, have made this possible. This acknowledgement is not merely a formal thanks note; it is the best way I could attempt to convey my sincere gratitude and respect for those who have been indispensable in completing this project. I am highly indebted and express my heartfelt gratitude to my guide Sh Shamboo Nath Manhas, Senior Assistant professor, Government College of Education, for his unprecedented help and scholarly skills that he imbibed in me. It was only due to his valuable academic guidance, encouragement, deep personal interest and inspiration that the present study could be completed well in time.

I am to place on record my heartfelt gratitude to Dr. Rajinder Kour, M.ED Co-ordinator, and Principal Government College of Education, Assistant professor Dr Rekha Rani, who deserve special mention and appreciation for providing me valuable access to various facilities for conducting research and also the freedom to interact with the students and staff of the different wings of the institution. Their intellectual and academic input have helped to improve the quality of this work significantly.

I am thankful to the Principal of the college who allowed me to collect data from his college and of course the teacher trainees who participated in this study. I wish to acknowledge the invaluable support and cooperation rendered to me by the staff members of Government College of Education.

Last but not the least; I thank my family who stood behind me like a rock and for their inspirational spirit, which gave me new vigour and impetus to work with devotion and absolute commitment in every possible way. Finally, I wish to sincerely thank my peer group for understanding and cooperating with me in times of difficulty. Their love and support contributed immensely in the completion of this research.

Monika Katoch
M.Ed. Student

LIST OF CONTENTS

Chapters	CONTENTS	Page No
I	INTRODUCTION	1-11
1.1	Meaning of mental health	2
1.2	Factors affecting mental health	3
1.3	Aspects of mental health	5
1.4	Paradigms of mental health	5
1.5	Characteristics of mentally healthy person	6
1.6	Importance of mental health	7
1.7	Need and significance of the study	8
1.8	Statement of the problem	9
1.9	Operational definitions of the terms used	9
1.10	Objectives of the study	10
1.11	Hypotheses of the study	10
1.12	Delimitations of the study	11
2.	REVIEW OF RELATED LITERATURE	12-18
3.	RESEARCH METHODOLOGY	19-24
3.1	Variables to be studied	19
3.2	Population	20
3.3	Selection of the sample	20
3.4	Tool used	21
3.5	Administration of the tool	23
3.6	Scoring of the tool	23
3.7	Statistical techniques to be used	24

4.	ANALYSIS AND INTERPRETATION OF DATA	25-33
4.	CONCLUSIONS, EDUCATIONAL IMPLICATIONS AND SUGGESTION FOR FURTHER RESEARCH	34-35
5.1	Conclusions	34
5.2	Educational Implications	34
5.3	Suggestions for Further Research	35
	SUMMARY	36-48
	BIBLIOGRAPHY	49-50
	APPENDICES	51-63

LIST OF TABLES

Table No	CONTENTS	P. No
3.1	Distribution of sample from Autonomous College and Non-autonomous colleges	21
4.1	Showing scores of mental health of teachers belonging to autonomous and non-autonomous colleges	29
4.2	Showing squares of the scores	30
4.3	Showing the summary of ANOVA for 2x2 Factorial Design	32

LIST OF APPENDICES

S.No	Appendix	Page No
A.	Mental Health Check-List	51-52
B.	Raw Scores of male	53-57
C.	Raw Scores of female	58-62

CHAPTER – 1

INTRODUCTION

Teachers not only impart education to the students but also act as a bridge to fill the gap between students, principal, management and parents. Their cordial relation with students reflects in the behaviour and speech of teachers. Sound professional relations of a teacher with students, their parents, colleagues, and management may lead to their better mental health.

In the present world of professional competence, everyone is threatened by increasing competitions and degraded circumstances. Health is and has been always one of the most important areas where focus is necessary for all times. Resultantly, the concept of health has been extended beyond the proper functioning of the body; it includes controlled emotions, a sound and efficient mind. In simple words, it means that mind and body both are working efficiently and harmoniously (Kaur, 2007).

Mental health plays a pivot and vital role in human life. It is not only important but essential for survival as a social being. No area of human life is beyond the range of mental health. It includes every aspect and dimension of human personality and the individual's adjustment to own self, others and environment. The main characteristic of mental health is adjustment, magnitude of which decides the status of mental health. The greater the degree of adjustment, the greater will be the mental health and lesser degree will lead to the lesser mental health. The mentally healthy individual can adapt him or herself to every best and worst condition of life and environment.

The expression '*Mental Health*' consists of two words- The word 'Mental' usually implies something more than purely cerebral functioning of a person. It includes one's emotional affective states. It is the equilibrium in one's Socio-cultural context that is reflected by the relationship one establishes with others. Similarly, 'Health' refers to more than physical wellbeing. It also connotes the individual's intra-physic balance, the interaction of one's physic-structure with the external and social environment (Kaur, 2007). For example, a person who is

academically sound and also knows what is to be taught but at times is not able to impart it due to certain factors of adjustment with his/her environment.

Mental health stands for the health of the mind, "*The wholesomeness of mind*"—analogous to the wholesomeness of the body as implicit in physical health. Accordingly, mental health is concerned with the health of one's mind and its functioning in the same way as the physical health is concerned with the health of one's physical organs and their functioning. Mental health, in layman terms, is a level of psychological well-being, or an absence of a mental disorder (Singh, 2004). From the perspective of positive psychology or holism, mental health may include an individual's ability to enjoy life, and create a balance between life activities and efforts to achieve psychological resilience. According to World Health Organization (WHO), mental health includes "subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others.

1.1 MEANING OF MENTAL HEALTH

Mental health is a dynamic functioning of the whole organism. It brings a harmony of movement in the organism to achieve an end which is compilation of fulfillment.

Mental health of an individual is very important for proper development of personality. A child remains in constant company of his mother in the formative years of his infancy. From the point of view of psychologists, the early childhood experiences are very important for the future development of personality. It cannot be within a few days nor is it influenced by the environment alone but, it is a continuous process of the influence of social cultural and physical environment.

Many people have tried to give a proper perspective of mental health :

Frank (1953) : defines a mentally healthy persons are those who continue to grow, develop and nurture throughout life by accepting responsibility and finding fulfillments without paying high prices, either socially or personally.

According to **Lewken**, “Mentally healthy individual is one who is satisfied, lives peacefully with his neighbours, makes the healthy citizens of his children and even after performing these fundamental duties has enough energy left to do something of benefit to the society.

Carl Rogers defines a healthy personality as one, which shows acceptances of feelings of self esteem, relating well to others, openness to new ideas, abilities to make independent decisions, creativity and living fully.

The degree of successful adjustment is directly related to the mental health. The mentally healthy individual can interpret any new situation and adopt it to suit himself or adopt himself to suit it. He maintains a healthy and benevolent attitude towards life. He is aware that the difficulties visit everyone in life, so running away from them is cowardice. This can be solved only by squarely facing them with courage.

1.2 FACTORS AFFECTING MENTAL HEALTH

Good mental health is more than just the absence of mental illness. It can be seen as a state of mental health that allows one to flourish and fully enjoy life. Some of the factors that affects the mental health of an individual are as follow;

- 1. Self-Esteem:** - This is the value we place on ourselves, our positive self image and sense of self worth. People with high self esteem generally have appositve outlook and are satisfied with themselves most of the time.
- 2. Feeling Loved:-** Children who feel loved , trusted and accepted by their parents and others are far more likely to have good self esteem. They are likely to feel comfortable, safe and secure, and are better able to communicate and develop positive relationships with others.
- 3. Confidence:-** Youth should be encouraged to discover their own unique qualities and have the confidence to face challenges and take risk. Young who are brought up to have confidence in themselves are more likely to have a positive attitude and to lead a happy productive lives.
- 4. Family Break-up or Loss:-** Separation or divorce or the loss of a parent or sibling is extremely painful. Finding ways to cope and adjust to

change brought by these events is critical for everyone, but particularly for youth. How grief is handled can affect young people negatively for years to come. If children are having difficulty coping, professional help is recommended.

5. **Difficult Behaviour:-** When people are unhappy, they either internalize their unhappiness or act out. The latter appears as bad or difficult behaviour, such as using abusive language, being aggressive or violent, damaging property stealing, lying or refusing to comply requests or explanations at school or home, or displaying others inappropriate actions. If such behaviours is serious and persistent, the young person and their family might require professional help.
6. **Physical Ill Health:-** Diseases, injuries and other physical problems often contribute to poor mental health and sometimes mental illness. Some physical causes (such as birth trauma brain injury or drug abuse), can directly affect brain chemistry and contribute to mental illness. More commonly poor physical health can affect self esteem and people's ability to meet their goal, which leads to unhappiness and even depression.
7. **Abuse:-** The mental health of abused children is at great risk. Abused children are more likely to experience mental disorders or mental illness during childhood and into adulthood.
7. **Poverty :-** Poverty has a negative effect upon the mental hygiene of the individual. Various results of its influences are as below :-
 - a) **Inferiority complex :** Feelings of inferiority are developed in children due to poverty. These inferiority feelings leads to various types of frustrations and maladjustments which spoil mental hygiene.
 - b) **Feelings of insecurity :** Due to poverty, feelings of insecurity are also developed. These feelings of insecurity cause dissatisfaction and dissatisfaction has adverse effect upon mental hygiene.
 - c) **Lack of self-confidence :** Due to poor economic conditions, the child has to face failures several times. This leads to diminishing

of self-confidence in him. Lack of self-confidence has negative effect upon mental hygiene.

1.3 ASPECTS OF MENTAL HEALTH

Mental Health has two aspects- individual and social. The individual aspect of mental health means that the individual is internally adjusted. He is self-confident, adequate and free from internal conflicts, tensions or inconsistencies in his behaviour. He is able to adapt successfully to the changing needs and demands of the environment. He is capable of making decisions, assuming responsibilities in accordance with his capacities. He finds satisfaction, success and happiness in day-to-day work. He is able to live effectively with others. He has insight into and understanding of his motives, desires, weaknesses and strong points.

The social aspect of mental health connotes that mental health is the result of social forces influencing the individual beginning with his formative years and continuing throughout his life. The individual must be capable of social adjustment; otherwise he will suffer from mental health. He must also be accepted as a member of the society in which he lives. It is because of these two aspects of mental health that mental health is, at time, defined as the ability of the individual to make personal and social adjustment.

The importance of mental health cannot be overestimated. Fortunately, a great deal of attention has been given in recent years of this important aspect of the individual's personality. Not only has the school become much more conscious of its responsibility in this connection, but the community at large, has also demonstrated its interest in the problem through very active mental health groups composed of lay persons as well as professional medical, clinical and teaching personals.

1.4 PARADIGMS OF MENTAL HEALTH

We should acquaint ourselves with some basic principles/ paradigms of mental health. These principles are based on a philosophy of life.

Self-Knowledge: Every individual should know himself i.e. awareness of weaknesses as well as all potentialities which would help him to adjust with the

environment. Education ought to enable a person to know himself in an realistic manner.

Self- Acceptance: One should accept oneself as one is. One should not forget the fact that a handsome is one whose behaviour is good, heart is good and who is guided by goodness for all. Self acceptance involves the ability to recognize one's limitations and to act accordingly.

Be Thyself: Be thyself is very effective and useful proposition for mental health. It means that one should be natural and not artificial in his manners and living. Such a person would never suffer from mental agonies.

1.5 CHARACTERISTICS OF MENTALLY HEALTHY PERSON

- Good physical health: A mentally healthy person possess a good physical health.
- Psychological comfort: A mentally healthy person is free from psychological diseases like depression, obsession, compulsion, excessive anxieties, frustrations, conflicts, disorders and not easily annoyed.
- Intellectually developed: A mentally healthy person is emotionally well developed. He is able to think independently and to take proper decision at a proper time.
- Emotionally controlled: A mentally healthy person is emotionally mature and stable. His emotions are well trained and controlled. He is free from persistent emotional tensions in his life.
- Socially adjustable: A mentally healthy person is socially awakened. He has an adequate ability to make adjustments in changing situations and circumstances. He has the ability to get along with oneself and other.
- Socially approved goals: A mentally healthy person does not indulge in anti- social activities. His goal of life is in accordance with social norms. He fulfils his objectives in harmony with other people.
- Sense of satisfaction: A mentally healthy person feels satisfied with his surroundings. He feels satisfied with his family, neighbourhood, school,

class, teachers and other members of the society.

- Flexibility in behaviour: A mentally healthy person shows flexibility in his behaviour. He is not rigid in his behaviour.
- Enthusiastic and reasonable: A mentally healthy person has enthusiasm in his life. He is reasonable in his actions.
- Healthy habits, attitudes and interests: A mentally healthy person possesses healthy habits, attitudes and interests. He is regular and punctual in performing his duties. He possesses healthy attitude towards life, relatives, family, friends, community, country, religion and profession.
- Healthy philosophy of life: A mentally healthy person possesses healthy philosophy of life that governs his conduct and activities. He has enough courage and tolerance for facing failures in his life. He never repents and worries over his failures and disappointments.
- Self-understanding: A mentally healthy person knows himself. He understand his strength and weaknesses. He select various tasks and activities in accordance with his abilities and developmental level.
- Understanding of Environment: A mentally healthy person has adequate understanding of environment and capacity of making adjustment.
- In brief, we can say that mental health is a condition which permits the maximum development of physical, intellectual, social and emotional state of the individual so that he can contribute maximum to the welfare of the society and can also realize his aims and ideals in his life.

1.6 IMPORTANCE OF MENTAL HEALTH

Mental health is a basic factor that contributes to the maintenance of physical health. Mental health of the person helps him in developing good physical health. It helps the person in making best use of his intellectual capacities like thinking, imagination, concentration, memory, problem solving and creativity. Mental health and emotional development are closely related to each other. A mentally healthy person is emotionally mature and stable. It helps the person in maintaining healthy social relationships. It assists him in adequate social development and proper social adjustment. It helps the person in the

development of proper aesthetic and artistic sense. A sound mental health is conducive to moral development. A person who enjoys good mental health has reasonable control over his emotions and canalizes his energy according to the ethical norms of society. It helps the person in making adequate adjustment with himself and his environment or world at large.

It helps the person in the realization of his goals of life which gives satisfaction and happiness and also helps the person in facing the realities of life. It helps the person in projecting him against mental illness, abnormalities of behaviour and mental disorders. It checks emotional disintegration and misbalance. It helps the person in developing a balanced sense of rights and duties. It helps in bringing peace, progress and happiness in the society. It also promotes peace of mind, satisfaction, happiness and harmony with the self and the world.

Thus, mental health is a relatively enduring state of being in which an individual is reasonable to self, as reflected in his/her zest for living and feeling of self-realization. It also implies a large degree of adjustment to the social environment, as indicated by the satisfaction derived from interpersonal relationship, as well as achievement. Mental health is a state of successful performance of mental functions, resulting to productive activities, fulfilling relationships with others, the ability to adapt and to cope with adversity specific to the individual's culture. One way to think about mental health is by looking at how effectively and successfully a person functions. Feeling capable and competent, being able to handle normal levels of stress, maintaining satisfying relationships and leading an independent life and being able to "bounce back" or recover from difficult situation are all signs of good mental health.

1.7 NEED AND SIGNIFICANCE OF THE STUDY

One of the most important aim of the education is to help an individual in making proper adjustment with the changing environment. In order to achieve this aim, it is essential to have an integrated and balanced personality. It also assists an individual in making adjustment with the members of the family, friends, class fellows, teachers and other members of the society.

It is a well known fact that a person's mental health plays a very important role in the formation of personality. If a person is not mentally

healthy, he cannot have a proper and well adjusted personality and cannot adjust himself in the society. Mental health is a condition of psychological maturity. Mental health is very important for all the members of the society.

Many studies have proved that a person who is mentally healthy always maintains equilibrium with self and the environment. A mentally healthy individual shows balanced behaviour as he faces the realities of life boldly. For him, life would be worth living and he shows sufficient amount of will to live. He soon recovers in adverse situations.

Mental health is a dynamic function of the whole organism. It brings a harmony of movement in the organism to achieve an end which is completion of fulfillment. There are many people who are efficient in their work, make tons of money and in every sense appear successful in life, yet these persons may be unhappy, worried and troublesome. A mentally healthy person is social because he conforms to the laws and the customs of the community in which he lives and through which he finds the fullest development and satisfaction of his personality and the greatest measure of freedom.

The study is being done in order to know about the various mental health problems of the teachers faced by them at college level and to find the remedial measures to have a successful life ahead.

1.8 STATEMENT OF THE PROBLEM

A COMPARATIVE STUDY OF THE MENTAL HEALTH OF TEACHERS WORKING IN AUTONOMOUS AND NON-AUTONOMOUS COLLEGES OF IN JAMMU CITY.

1.9 OPERATIONAL DEFINATIONS OF THE TERMS USED

Mental Health

Mental health in the present study refers to our cognitive behaviour and emotional well being. It is all about how we think , feel and behave.

Mental health is defined as person's ability to make positive self –evaluation, to perceive the reality, to integrate the personality, autonomy, group oriented attitude and environmental mastery.

Teacher: Teacher is a social fabric. He is motivated person. He plays a very key role in the miracle of the teaching learning situation, here, the teacher is a person who works in the school and earn his/her livelihood out of the profession.

AUTONOMOUS COLLEGES- In the present study, autonomous colleges are those colleges which are granted autonomy to formulate their own regulations/ curriculum/ syllabus/ examination pattern/ grades system for their academic programmes.

NON-AUTONOMOUS COLLEGES- In the present study, these are the colleges affiliated to the University of Jammu and are functioning under direct supervision of the university administration in many aspects.

1.10 OBJECTIVES OF THE STUDY

In order to conduct the study, the investigator framed following objectives:

1. To study the significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.
2. To study the significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. To study the significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non-autonomous) when mental health scores are taken as dependent variable.

1.11 HYPOTHESES OF THE STUDY

The following hypotheses have been formulated for the present study:

1. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.

2. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. There is no significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non- autonomous) when mental health scores are taken as dependent variable.

1.12 DELIMITATIONS OF THE STUDY

The study is quite extensive in nature , to make thorough study of mental health and mental health problems is quite difficult .It requires a patient work over a considerable period of time. So, due to paucity of time, the present study has been limited in terms of scope and sample.

1. The study was restricted to mental health of teachers teaching in autonomous and non- autonomous colleges of Jammu city.
2. The study was restricted to the sample of 200 teachers (100 of autonomous and 100 of non- autonomous).
3. The study was conducted in Jammu district only.
4. Only 7 colleges were included in the present study.

CHAPTER -2

REVIEW OF RELATED LITERATURE

Before taking up any specific research project in the development of a discipline, the investigator must be thoroughly familiar with previous theory and practice. A review of related literature is one of essential steps for the conduct of research study. It enables the researcher to workout the finer details of his / her research problem. It helps to save time and resources. It is one of the important aspects of a research project “Particularly all human knowledge can be found in books and libraries new with each generations recorded knowledge of the past”.

The “Review of Literature” consists of two words i.e. ‘Review’ and ‘Literature’ the term review means to organize the knowledge of the specific area of research to evolve an edifice of knowledge to show that his/her study would be an addition to this field. In research methodology the term ‘Literature’ means the knowledge of a particular area of investigation of any discipline which includes theoretical, practical and its research studies. The task of review of related literature is highly creative and tedious because researcher has to synthesize ; the available knowledge of the field in a unique way to provide the rationales for his/her study.

Education is such a field about which investigator has to have up-to-date information about all the researches, which have been conducted till present and also those, which are under process, the objectives behind survey of related literature is to have through and deep understanding of the topic and also the areas which are left untouched. Related study also enables the investigator to do research on any more related problems and suggestions for further research.

It is very valuable task for an investigator to have a comprehensive survey of what already has been done on the problem and its related studies. “Survey of related literature avoids the risk of duplication, provides details which are valuable in formulating in the problem and contributes to the general scholarship of the investigator” “the orientation provided by a survey or the related research is helpful in making a straight forward statement of need for

investigation avoiding two extremes of apologetic attitudes and exaggerated claims”.

Scott and Wetherner (1932) states, “Review of related study may serve to avoid unnecessary duplications and may help to make progress towards the solution of the new problem”.

John W. Best, “Practically all human knowledge can be found in books and libraries. Unlike other animals that must start with each generation, man builds upon the accumulated and recorded knowledge of the past. He constant adding to the vast store of knowledge makes possible progress in all areas of the human endeavour.”

According to Water R. Borg, “The literature in any field form the foundation of knowledge upon which all future work will be built.”

It is through the review of related studies that would develop an insight and interest of the investigator. Due to the non availability of the literature and shortage of time, the investigator could not collect more studies. In the present investigation, the investigator visited departmental library, university library and on internet site.

The general purpose of the review is to hold the research work for a thorough understanding and insight into the work already done and area left untouched or unexplained. Review of related literature is one of the most important steps in the planning of any research study.

In the present study, the investigator while conducting his research work has interacted with scholars who have already conducted research on mental health. For enriching his level of understanding, the investigator consulted some reputed journals dissertations, thesis and relevant article in daily news papers. She also consulted the books of foreign authors and Indian authors related to the issues in the study from the library. The investigator has also drawn factual data and information from internet. The investigator also interacted with some professors, teachers and experts to update her knowledge.

Han & Weiss (2005) revealed that many teachers were feeling helpless when it comes to helping pupils with mental health issues.

Kaur (2007) investigates occupational stress, mental health and coping resources of high and higher secondary school teachers and their relationship. The results revealed that sometimes teachers feel stressed due to role overload, responsibilities and physical stressors present in school. Whereas, teachers those who are mentally healthy use coping resources to combat the effect of occupational stress. They use recreational activities such as watching T.V., listening music, getting social support from friends to relief from mental tensions, etc. The result also indicated that correlation between occupational stress and mental health is negative. Occupational stress and coping resources also tends to be negative. Correlation between mental health and coping resources is positive and significant.

Srivastava and Khan (2008) conducted a study to know the impact of mental health on the level of burnout of the teachers teaching at different education level. They concluded that teachers with low mental health are more prone to burnouts than the teachers of average and high mental health.

Skaalvik & Skaalvik (2010) examine teachers' responses, it is evident that they are not comfortable managing classes with pupils with mental health problems they might feel stressed and having low self efficacy in their ability to manage the class. This was also concluded that teachers saw these as challenge and overload.

Srivastava (2010) assessed the personality and mental health among primary and secondary teachers. The result indicates that personality types/traits influence the mental health of primary and secondary teachers and extrovert teachers enjoy better mental health as compared to introvert teachers.

Kale (2011) conducted a study on awareness of mental health among newly admitted B.Ed. Students. The researcher has applied survey method for collecting the data. The results reveal that there is great awareness about the mental health among newly admitted B.Ed students.

Reinke et al., (2011) study reported having a minimal role in conducting screening and behavior assessments for mental health issues in their pupils, believing this to be the primary responsibility of the school psychologist despite

they perceived themselves as having primary responsibility for implementing classroom-based behavioural interventions.

Manikandan (2012) study was to find out the occupational mental health of school and college teachers. The study revealed that sex and institution have significant main and interaction effects on certain components of occupational mental health but not in the case of total occupational mental health of teachers. The mean score on job satisfaction of males' teachers is lower than the mean score of female teachers. Female teachers experience more job satisfaction than the male teachers. The mean score on negative job carry over of male teachers is higher than the mean score of female teachers. The type of Institution (College/School) is also an important factor in determining the Self-concept and Negative job carry over of school and college teachers. The results revealed that Self-concept of teachers working in college and School significantly differ. College teachers feel more dignity, esteem or status as teachers in a college than individuals working in a school.

Kumar (2013) reveals that urban elementary school teachers scored higher mean scores on mental health ($t = -16.06$; $p < .01$) whereas, elementary school teachers from rural schools are scored low on mental health. Meaning thereby, awareness of self-mental health would make elementary school teachers' to cope with stressful situation in an enhanced way and are in a better position to perform appraisal of pupils' undesirable behaviour at elementary school level.

Gorsy (2015) reveals that significant gender differences exist among government school teachers and male school teachers were found better on mental health than their female counterparts. Additionally, teachers posted at schools located under urban area were found higher on mental health as compared to teaches posted at schools located under rural areas.

Dagar and Mathur (2016) study is aimed at finding the mental health of government and non government school teachers and its relation to sex. 600 teachers were selected from different schools of Haryana district. Mental health inventory was used. It was found that male teachers possess good mental health in comparison to female teachers. Type of school has no effect on the mental health of teachers.

McLean, et al., (2017) study examined the trajectories of depressive and anxious symptoms among early-career teachers (N = 133) as they transitioned from their training programs into their first year of teaching. In addition, perceived school climate was explored as a moderator of these trajectories. Multilevel linear growth modeling revealed that depressive and anxious symptoms increased across the transition, and negative perceived school climate was related to more drastically increasing symptoms. Results suggest that this career stage may be a time when teachers are particularly vulnerable to declines in mental health, and speak to some within-school features that may be related to teachers' experiences.

Latif et al, (2018) examine teachers' attitude towards their role in pupils' mental health promotion, and identify barriers they may encounter. 382 teachers (95.5%) agreed that teachers play an influential role in recognizing pupils with mental health problems, 389 teacher (97.25%) agreed that referring pupils with mental health problems for appropriate early support reduces their risk of developing mental health problems, 374 (93.5%) agreed that schools hold a unique position in positively affecting the mental health of pupils and nearly 350 teachers(88%) reported in adequate training to recognize the early signs of pupils' mental health problems, concerns over workload and lack of services that promote teachers mental health to mitigate the workload before expecting from them to promote pupils' mental health as barriers to pupils mental health promotion. Total scores of the three dimensions of attitude (cognitive, affective and behavioral) were as regard the following variables the two educational zones, different school types, educational stages, graduation college, and taking educational diploma among those graduated from college other than graduation college, attending activities about pupils' mental health, teaching for special needs pupils and teaching for pupils with mental health problems. Most of teachers had positive attitude toward their role in pupils' mental health promotion.

Venkataraman, et al.,(2019) the magnitude of mental disorders is a growing public health concern. According to World Health Organization (WHO) reports, one out of five children suffer from a disabling mental illness. Majority of mental illnesses start during the adolescent period. Management of mental

illnesses start from recognizing the needy adolescent and providing appropriate therapy and support. Most of the children and adolescents are students who spend almost half of their active time in schools under observation of their teachers. Teachers interact with students daily and can spot the changes in their behaviour before they develop full-blown symptoms. Hence, teachers can be a major resource of importance in providing basic mental health services. The teacher's ability to identify the early signs of mental illness in adolescent students can be considered as the most critical and neglected area. Majority of the studies are conducted in the community or adolescent students and much less attention has been paid to the mental health literacy of educators, who are important role models and youth influencers in addressing mental health literacy. The scenario in India in this regard is highly disappointing with few studies done among teachers.

Idris, et al., (2021) study examine that online teaching, students and lecturers in our study identified both positive and negative experiences including the impact on their physical and mental health. Our findings are important to provide the evidence for online pedagogical benefits and can serve to promote the enhancement and adaptation of digital technology in education. Our findings also aim to promote the importance of addressing physical and mental health issues of the university community's well-being through provision of emotional and mental health support and appropriate programs.

Hossain, et al., (2022) the findings indicate that the overall prevalence of depression, anxiety, and stress among teachers was 35.4%, 43.7%, and 6.6%, respectively. The prevalence was higher among male and older teachers than among their female and younger colleagues. The findings further showed that place of residence, institution, self-reported health, usage of social and electronic media, and fear of COVID-19 significantly influenced the mental health status of teachers.

Conclusion

Above quoted review of related literature acquaint with current knowledge in the field in which he/she is going to conduct his/her research. By reviewing, the related literature the researcher avoided unfruitful, unless problem in the areas.

She selected those areas in which positive findings are very likely to add result and her endeavour would be likely the knowledge in a meaningful way. The review of related literature, guided the researcher up to date her work viz, stating objectives and hypotheses which others have done and thus to state the objectives clearly and concisely. The review of related literature gave the researcher an understanding of the research methodology which refers to the way the study is to be conducted. It also helps the researcher with regards to methods followed, devices of data collection, analysis made, pre-requisite which is necessary before conducting any sort of research work.

CHAPTER - 3

RESEARCH METHODOLOGY

To explain the procedure for the study, the investigator described the technique used for the collection of data. The methods adopted in drawing out the sample and the procedure employed is tabulating and organizing the data. This chapter gives an idea about the sample which is the basis of research. In addition to this, it also provides a picture of the instruments used, collection of data and statistical techniques employed for the analysis of data. The order of discussion of these aspects is given as under.

1. Variables to be studied
2. Population
3. Selection of Sample
4. Tool used
5. Administration of the Tools
6. Scoring of the Tool
7. Statistical Techniques

3.1 VARIBALES TO BE STUDIED

In the present study, there are two independent variables and one dependent variable which are to be studied.

(a) Independent Variables

- i) Gender : Male and Female
- ii) Type of Colleges : Autonomous and Non-autonomous

(b) Dependent variable

- i. Mental health scores.

3.2 POPULATION

A population refers to any collection of specified group of human being or of non- human entities such as objects, educational institutions, time unit, geographical areas, prices of wheat or salaries drawn by individuals. Some statisticians call it universe. In the present study the population teachers working in 2 autonomous and 5 non- autonomous colleges in Jammu city.

3.3 SELECTION OF THE SAMPLE

‘Sampling is the fundamental and basic vital essence of research. Sampling generally refers to the process of selecting a small part or specimen of something in order to determine some qualities or characteristics of the whole. It is very easy to understand that the investigator can never collect the data about the whole population in any investigation. One has to take selected group of individual who could present the whole population and form the basic for making reference for certain population facts. This is known as sampling. The sampling has great utility in research. The size of the sample varies from study to study, methods to methods and nature of population. It is easier, less time consuming and economical to deal with a sample than the whole population. Infact, good sample minimizes the error of estimation.

There are many techniques for obtaining a sample, which may be the representative of the whole population. In the present study, the sample was randomly selected. For this purpose, the investigator collect the data from Jammu district. Each college was allotted a serial number and by lottery method 7 colleges were selected for the data collection. The heads of the institutions were visited personally and ultimately 7 college heads gave the permission for data collection.

Sample is indispensable to the researcher. Since, it is physically impossible to work with the total population in any scientific investigation and sampling is the only alternative. Research, therefore, is invariably conducted by means of a sample, drawn from the population on the basis of which generalizations are arrived and are made applicable to the target.

In the present study, Purposive Sampling Technique has been employed for selecting a sample of 200 teachers (100 from autonomous and 100 from non-

autonomous colleges). The number of teachers selected from different institutions are given in Table 3.1.

TABLE 3.1

Distribution of sample from Autonomous College and Non-autonomous colleges

S.No.	Name of Colleges	Total
1.	MIER College Of Education, Jammu city	25
2.	Government College for Women Parade, Jammu city	75
3.	Govt. College of Education, Jammu city	10
4.	Government College of women Gandhi Nagar, Jammu city	30
5.	M.A.M College ,Jammu	20
6.	S.P.M.R College Of Commerce, Jammu city	15
7.	G.G.M Science College ,Jammu city	25
	Total	200

3.4 TOOL USED

The investigator employed following tools for the data collection. To carry out any type of research, investigation data must be gathered to test the hypothesis. For collecting new and unknown data required for the study of any problem one may use various devices. For each and every type of research, we need certain instruments to gather new facts to explore new fields. The selection of suitable instrument is of vital importance for successful research. Different types of tools are suitable for collecting different kinds of information for various purposes.

For the present investigation, the researcher has selected the following tool to be used to collect the requisite data.

Mental Health Check List by Dr. Pramod Kumar

To measure the **Mental Health** of the teachers in the sample, the investigator used the **Mental Health Check List scale** constructed and standardized by **Dr. Pramod Kumar**. There are 11 items in the test and each item is to responded by the teachers either Always, Often, Sometimes and Never

respectively. The teachers have to tick (✓) the statement which seems to be right either it may.

A copy of test booklet of the test is enclosed in Appendix 'A'.

Reliability and Validity

The test-retest reliability. It has been found to be .65 (N =30) with an index of reliability of .81 (Table 2). The retest was given with a time interval of two weeks.

Table 2

Test – retest Reliability Indicators

Indices	N	r-value	Index of reliability
Retest	30	.65	.81

Validity

The face validity of Mental Health Check-list appears to be fairly high as items were prepared by asking teachers of psychology to list all such symptoms which, according to them, showed poor mental health.

The content validity was adequately assured as only those symptoms which showed 100 percent agreement amongst the judges regarding their relevance to the study of mental health were selected.

Of these, only those items which gave a fairly high discrimination value, i.e. 30 or above, following item-analysis were finally included in the check list.

On the assumption, that maritally high adjusted couples (having had a higher satisfaction of basic needs like love, companionship and sexuality) would show better mental health status than poorly adjusted couples, the Mental health check list was administered to a group of 108 couples -54 showing high marital adjustment and 54 showing poor marital adjustment (Kumar, Mori and Patel, 1989).

Table 3

Showing Mental Health Status of Maritally High and Low Adjusted Couples

Group	N	Mean	S.D.	T	P
Husband	MHA 54	12.72	2.30	4.46	.01
	MLA 54	14.82	2.58		
Wives	MHA 54	12.56	2.48	2.68	.01
	MLA 54	13.90	2.76		

3.5 ADMINISTRATION OF THE TOOL

The tool was administered in the college premises. The teachers were informed that their responses will be kept confidential and therefore, they should be frank, bold and sincere in answering the questions. After giving the necessary instructions, the investigator distributed the mental health check list to teachers. The teachers were advised to clear any doubt on the test. Clearing doubts is necessary to ensure genuineness of the responses. Sheets were collected with the help of one or two teachers. Thus, mental health check list was administered to the teachers.

3.6 SCORING OF THE TOOL

The Mental Health Check – Lists scoring system for both, Mental and Somatic Health, as Four Point alternatives rating format, viz., Always, Often, Sometimes and Never.

The Scoring numerical values to these four point alternatives is given in Table 1

S.No.	Type of Health	Always	Often	Sometimes	Never
I	Mental	3	2	1	0
II	Somatic	3	2	1	0

The range of minimum & maximum score for full check-list is 00 to 33.

The highly the score, the poor the mental health and the lower the scores, the better mental health.

3.7 STATISTICAL TECHNIQUES TO BE USED

In present study, the investigator was concerned with following techniques :

Two-way Analysis of variance with 2x2 factorial design was applied in order to study the mental health of teachers belonging to different gender and type of institution (autonomous and non-autonomous colleges).

CHAPTER – 4

ANALYSIS AND INTERPRETATION OF DATA

One of the most important step in any research project is the organization of analysis and interpretation of data. The tabulated data has no meaning unless it is analysed and interpreted by some suitable statistical technique so as to arrive at significant conclusion.

Analysis of data means studying the tabulated data in order to determine inherent facts or meanings. It involves the breaking up of the complex factors into simpler parts and putting them together for the purpose of the interpretation. The interpretation of data helps the investigator to analyse the same problem or the related problem with appropriate statistical techniques without wasting their labour. After the collection of data, it must be analyzed properly so as to draw proper inferences. It must be carefully edited, systematically analyzed, intelligently interpreted and rationally concluded.

According to Barr, “Analysis is an important phase of classification and summarization of data”. According to Good, “The process of interpretation is essential to know what do results show? What do they mean? What is their significance etc.”?

4.1 ASSUMPTIONS OF ANALYSIS OF VARIANCE

ANOVA is a powerful statistical technique or tool used to test the homogeneity of several means. It was developed by R.A. Fisher, an English statistician in 1920's who was also considered to be the father of modern statistics. It is an economical method of testing significant differences between the means of two groups.

In its simplest form, the analysis of variance is used to test the significance of the difference between two or more groups.

According to Fisher, “Analysis of variance (ANOVA) is the separation of variance ascribable to our group of causes from variance ascribed to other groups.”

Following are the important assumptions of Analysis of variance:-

- 1) **Independence of Groups:-** It is assumed that the groups selected should be made up of randomly selected subjects and are independent.
- 2) **Homogeneity of variance :-** It is assumed that the population from which groups have been selected have equal variances. In symbols, it is presented as ,

$$\sigma^2_1 = \sigma^2_2 \dots\dots\dots \sigma^2_k$$

- 3) **Normality of Distribution :-** The sample selected from the population should have normal distribution.
- 4) **Addivity :** - It has been stated that the total variance is obtained due to sum of two or other sources of variances i.e. variations.

4.2 ADVANTAGES OF ANALYSIS OF VARIANCE

Following are the advantages of ANOVA :-

- 1) Analysis of variance helps to compare all the groups or any number of comparison in a single test.
- 2) It is time saving and also involves less risk of errors i.e. when we reject the null hypothesis at small variance to be significant at .05 level.
- 3) The results obtained through analysis of variance are understandable and interpretable.
- 4) It is powerful statistical technique for testing significance of mean differences.
- 5) The analysis of variance is useful when there are more than two groups to be compared for testing significance of mean difference.

4.3 SELECTION OF THE STATISTICAL TECHNIQUE OF ANALYSIS

In the present investigation the investigator was interested to find out the difference in the mental health of teachers belonging to different gender & type of institutions.

In view of these consideration, the technique of two way ANOVA was used to realize the objectives of the study. The use of ANOVA was considered most appropriate technique.

4.4 ANALYSIS OF VARIANCE

In the present study, the two – way analysis of variance technique is applied to the data of mental health scores with the factorial design as 2x2 factorial matrices with mental health as criterion which was studied in relation to type of institutions (autonomous and non-autonomous colleges) and gender (male and female).

4.5 GENERAL COMPUTATIONAL STEPS FOR COMPUTATION OF TWO WAY ANOVA

Following are the general computational steps employed in two way ANOVA

Step I. Correction or C =
$$\frac{(\sum X_T)^2}{N_T}$$

Step II. Sum of squares for total (SS_T)

$$SS_T = \sum X_T^2 - C$$

Step III. Sum of squares for A (SS_A)

$$SS_A = \frac{(\sum A_1)^2}{NA_1} + \frac{(\sum A_2)^2}{NA_2} - C$$

Step IV. Sum of squares for B (SS_B)

$$SS_B = \frac{(\sum B_1)^2}{NB_1} + \frac{(\sum B_2)^2}{NB_2} - C$$

Step V. Sum of squares for Between cells (SS_{Bet. cells})

$$SS_{\text{Bet. cells}} = \frac{(\sum A_1 B_1)^2}{N_1} + \frac{(\sum A_1 B_2)^2}{N_2} + \frac{(\sum A_2 B_1)^2}{N_3} + \frac{(\sum A_2 B_2)^2}{N_4} - C$$

Step VI. Sum of squares for Interaction (SS_{AxB})

$$SS_{AxB} = SS_{\text{Bet cells}} - (SS_A + SS_B)$$

Step VII. Sum of squares for within (SS_W)

$$SS_W = SS_T - SS_{\text{Bet. cells}}$$

Summary of two – way ANOVA

Sources of variance	SS	DF	MS	F	Level of Significance
A (Columns)					
B (Rows)					
AxB (Columns & Rows)					
Within					

Table 4.1 Showing scores of mental health of teachers belonging to autonomous and non-autonomous colleges

Type of Institutions	GENDER		
	Male (A ₁)	Female (A ₂)	
Autonomous (B₁)	16	09	
	16	22	
	13	16	
	14	14	
	11	10	
	16	11	
	19	7	
	9	13	
	18	14	
	14	13	
	$\Sigma A_1 B_1 = 146$ $N_1 = 10$	$\Sigma A_2 B_1 = 129$ $N_3 = 10$	$\Sigma B_1 = 275$ $NB_1 = 20$
Non-autonomous (B₂)	21	20	
	21	17	
	4	14	
	13	12	
	15	15	
	13	20	
	5	9	
	16	19	
	17	15	
	12	10	
	$\Sigma A_1 B_2 = 137$ $N_2 = 10$	$\Sigma A_2 B_2 = 151$ $N_4 = 10$	$\Sigma B_2 = 288$ $NB_2 = 20$
	$\Sigma A_1 = 283$ $NA_1 = 20$	$\Sigma A_2 = 280$ $NA_3 = 20$	$\Sigma X_T = 563$ $N_T = 40$

Table 4.2 Showing squares of the scores.

Type of institution	Gender		
	Male (A_1^2)	Female (A_2^2)	
Autonomous (B₁)	256	81	
	256	484	
	169	256	
	196	196	
	121	100	
	256	121	
	361	49	
	81	169	
	324	196	
	196	169	
Non-autonomous (B₂)	441	400	
	441	289	
	16	196	
	169	144	
	225	225	
	169	400	
	25	81	
	256	361	
	289	225	
	144	100	
	$\Sigma A_1^2 = 4391$	$\Sigma A_2^2 = 4242$	$\Sigma X_T^2 = 6333$

Step I. Correction or C $= \frac{(\Sigma X_T)^2}{N_T}$

$$= \frac{(563)^2}{40}$$

$$= \frac{316969}{40}$$

$$= 7924.225$$

Step II. Sum of squares for Total (SS_T)

$$SS_T = \Sigma X_T^2 - C$$

$$SS_T = 8633 - 7924.225$$

$$SS_T = \mathbf{708.775}$$

Step III. Sum of squares for A (SS_A)

$$\begin{aligned} SS_A &= \frac{(\Sigma A_1)^2}{NA_1} + \frac{(\Sigma A_2)^2}{NA_2} - C \\ &= \frac{(283)^2}{20} + \frac{(280)^2}{20} - 7924.225 \\ &= \frac{80089}{20} + \frac{78400}{20} - 7924.225 \\ &= 4004.45 + 3920 - 7924.225 \\ &= 7924.45 - 7924.225 \end{aligned}$$

$$SS_A = \mathbf{0.225}$$

Step IV. Sum of squares for B(SS_B)

$$\begin{aligned} SS_B &= \frac{(\Sigma B_1)^2}{NB_1} + \frac{(\Sigma B_2)^2}{NB_2} - C \\ &= \frac{(275)^2}{20} + \frac{(288)^2}{20} - 7924.225 \\ &= \frac{75625}{20} + \frac{82944}{20} - 7924.225 \\ &= 3781.25 + 4147.2 - 7924.225 \end{aligned}$$

$$SS_B = \mathbf{4.225}$$

Step V. Sum of squares for Between cells ($SS_{\text{Bet.cells}}$)

$$\begin{aligned}
 SS_{\text{Bet.cells}} &= \frac{(\sum A_1 B_1)^2}{N_1} + \frac{(\sum A_1 B_2)^2}{N_2} + \frac{(\sum A_2 B_1)^2}{N_3} + \frac{(\sum A_2 B_2)^2}{N_4} - C \\
 &= \frac{(146)^2}{10} + \frac{(137)^2}{10} + \frac{(129)^2}{10} + \frac{(151)^2}{10} - 7924.225 \\
 &= \frac{21316}{10} + \frac{18769}{10} + \frac{16641}{10} + \frac{22801}{10} - 7924.225 \\
 &= 2131.6 + 1876.9 + 1664.1 + 2280.1 - 7924.225 \\
 &= 7952.7 - 7924.225
 \end{aligned}$$

$$SS_{\text{Bet.. cells}} = 28.475$$

Step VI. Sum of squares for interaction (SS_{AxB})

$$\begin{aligned}
 SS_{\text{AxB}} &= SS_{\text{Bet.cells}} - (SS_A + SS_B) \\
 &= 28.475 - (0.225 + 4.225) \\
 &= 28.475 - 4.45
 \end{aligned}$$

$$SS_{\text{AxB}} = 24.025$$

Step VII. Sum of square for within (SS_W)

$$\begin{aligned}
 SS_W &= SS_T - SS_{\text{Bet.cells}} \\
 &= 708.775 - 28.475
 \end{aligned}$$

$$SS_W = 680.30$$

Table 4.3 : Showing the summary of ANOVA for 2x2 Factorial Design

Source of variance	SS	Df	MS	F	Level of Significance
A(Gender)	0.225	1	0.225	0.011	Not Significant
B(Type of Institutions)	4.225	1	4.225	0.223	Not significant
AxB	24.025	1	24.025	1.27	Not Significant
Within	680.3	36	18.89		
Total	708.72	39			

INTERPRETATION

The F-ratio for the main factor A Gender (Male & Female) has been found to 0.011 which is less than the table value against 1 and 36 df. So the calculated value is not significant. It means that there is no significant difference among male and female in mental health. The first hypothesis there will be no significant difference in mental health among teachers on the basis of gender is accepted.

The F-ratio for the factor B (Type of Institutions i.e. autonomous and non-autonomous) has found to be 0.223 which is less than table value against 1 and 36. It means that the second hypothesis there is no significant difference among teachers on the basis of type of institutions i.e. autonomous and non-autonomous is also accepted.

The F-ratio for interaction AxB i.e. (Gender & Type of Institutions) has found to be 1.27 which is less than the table value against 1 and 36. It means that f-ratio is not significant, the third hypothesis that there is no significant interactional effect of gender and type of institutions on mental health taken as the independent variable is also accepted.

CHAPTER – 5

CONCLUSIONS, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 CONCLUSIONS

The purpose of any research study is to come out with some concrete conclusion to the problem taken in hand by using different stages of research. The proper data analysis and its interpretation lead to drawing out most valid and justified conclusions : -

1. No significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.
2. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. There is no significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non- autonomous) when mental health scores are taken as dependent variable.

5.2 EDUCATIONAL IMPLICATIONS

Health of the teacher, both physical and mental, adds to the efficiency of his work. In the stress of modern civilization, lack of mental health may lead to unhappiness, failure, misery and even insanity in a large number of cases. In the present scenario, more females are entering to the field of teaching, both at school and college levels. Indian culture strongly adhere to the roles of male and female in family, which again makes more pressure on females. The women empowerment activities have improved the status of women, at the same time, brought overload to the shoulders of women. The work cultures of institutions at school and college teachers are entirely different demanding different aspect from teachers. Hence, an attempt has been made in this study to find the influence of sex and institution on occupational mental health of school and college teachers.

1. There should be seminars, programs and workshops where the teachers can discuss the problems and find the solutions related to stress, mental health and burnout with the help of experts, psychologists and counselors.
2. The whole education system is dependent on an effective teacher as they are the nation builders so, it is necessary that teachers should be stress free and mentally healthy.
3. Meditation and Yoga should be used to over come stress and burnout among teachers. Various meditation and yoga camps should be organized in educational institutions for improving mental health which in turn will improve teacher effectiveness.
4. There should be programs regarding mental health in order to improve cognitive and intellectual performance as well as problem solving ability among teachers.

5.3 SUGGESTIONS FOR FURTHER RESEARCH

The following suggestions may be incorporated for further research.

Research is never ending process, the more one plunges into the oceans of knowledge, more vistas of knowledge open for him. Usually, there are few researchers in the field of education, and they cannot solve all the problems. Hence, more and more research is required to be undertaken. Due to heavy obstacle, present investigations could not cover up all dimensions of the problem. The following suggestions may be incorporated for further research.

1. The presents study cannot be called final and comprehensive; more work can be done on different samples of different age group.
2. The present study deals with teachers teaching in autonomous and 100 from non-autonomous colleges of Jammu city, same type of work can be done on high school and higher secondary teachers and thus, comparison can be made.
3. A sample of 200 teachers was taken in the study under investigation. Same study can be done on a large sample with more variables.
4. This study can be undertaken in other districts since, it was confined to Jammu district.

SUMMARY

Supervisor :

Shamboo Nath Manhas

Sr.Asstt. Professor

Investigator :

Monika Katoch

M.Ed Student

TOPIC : A COMPARATIVE STUDY OF MENTAL HEALTH OF TEACHERS WORKING IN AUTONOMOUS AND NON- AUTONOMOUS COLLEGES IN JAMMU CITY

A) INTRODUCTION

Teachers not only impart education to the students but also act as a bridge to fill the gap between students, principal, management and parents. Their cordial relation with students reflects in the behaviour and speech of teachers. Sound professional relations of a teacher with students, their parents, colleagues, and management may lead to their better mental health.

In the present world of professional competence, everyone is threatened by increasing competitions and degraded circumstances. Health is and has been always one of the most important areas where focus is necessary for all times. Resultantly, the concept of health has been extended beyond the proper functioning of the body; it includes controlled emotions, a sound and efficient mind. In simple words, it means that mind and body both are working efficiently and harmoniously (Kaur, 2007).

Mental health plays a pivot and vital role in human life. It is not only important but essential for survival as a social being. No area of human life is beyond the range of mental health. It includes every aspect and dimension of human personality and the individual's adjustment to own self, others and environment.

The main characteristic of mental health is adjustment, magnitude of which decides the status of mental health. The greater the degree of adjustment, the greater will be the mental health and lesser degree will lead to the lesser mental health. The mentally healthy individual can adapt him or herself to every best and worst condition of life and environment.

The expression '*Mental Health*' consists of two words- The word 'Mental' usually implies something more than purely cerebral functioning of a person. It includes one's emotional affective states. It is the equilibrium in one's Socio-cultural context that is reflected by the relationship one establishes with others. Similarly, 'Health' refers to more than physical wellbeing. It also connotes the individual's intra-physic balance, the interaction of one's physic-structure with the external and social environment (Kaur, 2007). For example, a person who is academically sound and also knows what is to be taught but at times is not able to impart it due to certain factors of adjustment with his/her environment.

B) MEANING OF MENTAL HEALTH

Mental health is a dynamic functioning of the whole organism. It brings a harmony of movement in the organism to achieve an end which is compilation of fulfillment.

Mental health of an individual is very important for proper development of personality. A child remains in constant company of his mother in the formative years of his infancy. From the point of view of psychologists, the early childhood experiences are very important for the future development of personality. It cannot be within a few days nor is it influenced by the environment alone but, it is a continuous process of the influence of social cultural and physical environment.

Many people have tried to give a proper perspective of mental health :

Frank (1953) : defines a mentally healthy persons are those who continue to grow, develop and nurture throughout life by accepting responsibility and finding fulfillments without paying high prices, either socially or personally.

According to **Lewken**, "Mentally healthy individual is one who is satisfied, lives peacefully with his neighbours, makes the healthy citizens of his children

and even after performing these fundamental duties has enough energy left to do something of benefit to the society.

Carl Rogers defines a healthy personality as one, which shows acceptances of feelings of self esteem, relating well to others, openness to new ideas, abilities to make independent decisions, creativity and living fully.

The degree of successful adjustment is directly related to the mental health. The mentally healthy individual can interpret any new situation and adopt it to suit himself or adopt himself to suit it. He maintains a healthy and benevolent attitude towards life. He is aware that the difficulties visit everyone in life, so running away from them is cowardice. This can be solved only by squarely facing them with courage.

C) CHARACTERISTICS OF MENTALLY HEALTHY PERSON

- Good physical health: A mentally healthy person possess a good physical health.
- Psychological comfort: A mentally healthy person is free from psychological diseases like depression, obsession, compulsion, excessive anxieties, frustrations, conflicts, disorders and not easily annoyed.
- Intellectually developed: A mentally healthy person is emotionally well developed. He is able to think independently and to take proper decision at a proper time.
- Emotionally controlled: A mentally healthy person is emotionally mature and stable. His emotions are well trained and controlled. He is free from persistent emotional tensions in his life.
- Socially adjustable: A mentally healthy person is socially awakened. He has an adequate ability to make adjustments in changing situations and circumstances. He has the ability to get along with oneself and other.
- Socially approved goals: A mentally healthy person does not indulge in anti- social activities. His goal of life is in accordance with social norms. He fulfils his objectives in harmony with other people.

- Sense of satisfaction: A mentally healthy person feels satisfied with his surroundings. He feels satisfied with his family, neighbourhood, school, class, teachers and other members of the society.
- Flexibility in behaviour: A mentally healthy person shows flexibility in his behaviour. He is not rigid in his behaviour.
- Enthusiastic and reasonable: A mentally healthy person has enthusiasm in his life. He is reasonable in his actions.
- Healthy habits, attitudes and interests: A mentally healthy person possesses healthy habits, attitudes and interests. He is regular and punctual in performing his duties. He possesses healthy attitude towards life, relatives, family, friends, community, country, religion and profession.
- Healthy philosophy of life: A mentally healthy person possesses healthy philosophy of life that governs his conduct and activities. He has enough courage and tolerance for facing failures in his life. He never repents and worries over his failures and disappointments.
- Self-understanding: A mentally healthy person knows himself. He understand his strength and weaknesses. He select various tasks and activities in accordance with his abilities and developmental level.
- Understanding of Environment: A mentally healthy person has adequate understanding of environment and capacity of making adjustment.
- In brief, we can say that mental health is a condition which permits the maximum development of physical, intellectual, social and emotional state of the individual so that he can contribute maximum to the welfare of the society and can also realize his aims and ideals in his life.

D) NEED AND SIGNIFICANCE OF THE STUDY

One of the most important aim of the education is to help an individual in making proper adjustment with the changing environment. In order to achieve this aim, it is essential to have an integrated and balanced personality. It also assists an individual in making adjustment with the members of the family, friends, class fellows, teachers and other members of the society.

It is a well known fact that a person's mental health plays a very important role in the formation of personality. If a person is not mentally healthy, he cannot have a proper and well adjusted personality and cannot adjust himself in the society. Mental health is a condition of psychological maturity. Mental health is very important for all the members of the society.

Many studies have proved that a person who is mentally healthy always maintains equilibrium with self and the environment. A mentally healthy individual shows balanced behaviour as he faces the realities of life boldly. For him, life would be worth living and he shows sufficient amount of will to live. He soon recovers in adverse situations.

Mental health is a dynamic function of the whole organism. It brings a harmony of movement in the organism to achieve an end which is completion of fulfillment. There are many people who are efficient in their work, make tons of money and in every sense appear successful in life, yet these persons may be unhappy, worried and troublesome. A mentally healthy person is social because he conforms to the laws and the customs of the community in which he lives and through which he finds the fullest development and satisfaction of his personality and the greatest measure of freedom.

The study is being done in order to know about the various mental health problems of the teachers faced by them at college level and to find the remedial measures to have a successful life ahead.

E) STATEMENT OF THE PROBLEM

A COMPARATIVE STUDY OF THE MENTAL HEALTH OF TEACHERS WORKING IN AUTONOMOUS AND NON-AUTONOMOUS COLLEGES OF IN JAMMU CITY.

F) OPERATIONAL DEFINATIONS OF THE TERMS USED

Mental Health

Mental health in the present study refers to our cognitive behaviour and emotional well being. It is all about how we think , feel and behave.

Mental health is defined as person's ability to make positive self –evaluation, to perceive the reality, to integrate the personality, autonomy, group oriented attitude and environmental mastery.

Teacher: Teacher is a social fabric. He is motivated person. He plays a very key role in the miracle of the teaching learning situation, here, the teacher is a person who works in the school and earn his/her livelihood out of the profession.

AUTONOMOUS COLLEGES- In the present study, autonomous colleges are those colleges which are granted autonomy to formulate their own regulations/ curriculum/ syllabus/ examination pattern/ grades system for their academic programmes.

NON-AUTONOMOUS COLLEGES-In the present study, these are the colleges affiliated to the University of Jammu and are functioning under direct supervision of the university administration in many aspects.

G) OBJECTIVES OF THE STUDY

In order to conduct the study, the investigator framed following objectives:

1. To study the significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.
2. To study the significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. To study the significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non-autonomous) when mental health scores are taken as dependent variable.

H) HYPOTHESES OF THE STUDY

The following hypotheses have been formulated for the present study:

1. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.

2. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. There is no significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non- autonomous) when mental health scores are taken as dependent variable.

I) DELIMITATIONS OF THE STUDY

The study is quite extensive in nature , to make thorough study of mental health and mental health problems is quite difficult .It requires a patient work over a considerable period of time. So, due to paucity of time, the present study has been limited in terms of scope and sample.

1. The study was restricted to mental health of teachers teaching in autonomous and non- autonomous colleges of Jammu city.
2. The study was restricted to the sample of 200 teachers (100 of autonomous and 100 of non- autonomous).
3. The study was conducted in Jammu district only.
4. Only 7 colleges were included in the present study.

J) VARIBALES TO BE STUDIED

In the present study, there are two independent variables and one dependent variable which are to be studied.

(a) Independent Variables

- i) Gender : Male and Female
- ii) Type of Colleges : Autonomous and Non-autonomous

(b) Dependent variable

- i. Mental health scores.

K) POPULATION

A population refers to any collection of specified group of human being or of non- human entities such as objects, educational institutions, time unit,

geographical areas, prices of wheat or salaries drawn by individuals. Some statisticians call it universe. In the present study the population teachers working in 2 autonomous and 5 non- autonomous colleges in Jammu city.

L) SELECTION OF THE SAMPLE

‘Sampling is the fundamental and basic vital essence of research. Sampling generally refers to the process of selecting a small part or specimen of something in order to determine some qualities or characteristics of the whole. It is very easy to understand that the investigator can never collect the data about the whole population in any investigation.

There are many techniques for obtaining a sample, which may be the representative of the whole population. In the present study, the sample was randomly selected. For this purpose, the investigator collect the data from Jammu district. Each college was allotted a serial number and by lottery method 7 colleges were selected for the data collection. The heads of the institutions were visited personally and ultimately 7 college heads gave the permission for data collection.

In the present study, Purposive Sampling Technique has been employed for selecting a sample of 200 teachers (100 from autonomous and 100 from non-autonomous colleges).

M) TOOL USED

The investigator employed following tools for the data collection. To carry out any type of research, investigation data must be gathered to test the hypothesis. For collecting new and unknown data required for the study of any problem one may use various devices. For each and every type of research, we need certain instruments to gather new facts to explore new fields. The selection of suitable instrument is of vital importance for successful research. Different types of tools are suitable for collecting different kinds of information for various purposes.

For the present investigation, the researcher has selected the following tool to be used to collect the requisite data.

Mental Health Check List by Dr. Pramod Kumar

To measure the **Mental Health** of the teachers in the sample, the investigator used the **Mental Health Check List scale** constructed and standardized by **Dr. Pramod Kumar**. There are 11 items in the test and each item is to responded by the teachers either Always, Often, Sometimes and Never respectively. The teachers have to tick (✓) the statement which seems to be right either it may.

A copy of test booklet of the test is enclose in Appendix ‘A’.

Reliability and Validity

The test-retest reliability. It has been found to be .65 (N =30) with an index of liability of .81 (Table 2). The retest was given with a time interval of two weeks.

Table 2

Test – retest Reliability Indicates

Indices	N	r-value	Index of reliability
Retest	30	.65	.81

Validity

The face validity of Mental Health Check-list appears to be fairly high as items were prepared by asking teachers of psychology to list all such symptoms which, according to them, showed poor mental health.

The content validity was adequately assured as only those symptoms which showed 100 percent agreement amongst the judges regarding their relevance to the study of mental health were selected.

Of these, only those items which gave a fairly high discrimination value, i.e. 30 or above, following item-analysis were finally included in the check list.

On the assumption, that martially high adjusted couples (having had a higher satisfaction of basic needs like love, companionship and sexuality) would show better mental health status than poorly adjusted couples, the Mental health check list was administered to a group of 108 couples -54 showing high marital adjustment and 54 showing poor marital adjustment (Kumar, Mori and Patel, 1989).

Table 3

Showing Mental Health Status of Maritally High and Low Adjusted Couples

Group	N	Mean	S.D.	T	P
Husband	MHA 54	12.72	2.30	4.46	.01
	MLA 54	14.82	2.58		
Wives	MHA 54	12.56	2.48	2.68	.01
	MLA 54	13.90	2.76		

N) ADMINISTRATION OF THE TOOL

The tool was administered in the college premises. The teachers were informed that their responses will be kept confidential and therefore, they should be frank, bold and sincere in answering the questions. After giving the necessary instructions, the investigator distributed the mental health check list to teachers. The teachers were advised to clear any doubt on the test. Clearing doubts is necessary to ensure genuineness of the responses. Sheets were collected with the help of one or two teachers. Thus, mental health check list was administered to the teachers.

O) SCORING OF THE TOOL

The Mental Health Check – Lists scoring system for both, Mental and Somatic Health, as Four Point alternatives rating format, viz., Always, Often, Sometimes and Never.

The Scoring numerical values to these four point alternatives is given in Table 1

S.No.	Type of Health	Always	Often	Sometimes	Never
I	Mental	3	2	1	0
II	Somatic	3	2	1	0

The range of minimum & maximum score for full check-list is 00 to 33.

The higher the score, the poorer the mental health and the lower the scores, the better mental health.

P) STATISTICAL TECHNIQUES TO BE USED

In present study, the investigator was concerned with following techniques :

Two-way Analysis of variance with 2x2 factorial design was applied in order to study the mental health of teachers belonging to different gender and type of institution (autonomous and non-autonomous colleges).

Q) ANALYSIS AND INTERPRETATION OF DATA

Table A : Showing the summary of ANOVA for 2x2 Factorial Design

Source of variance	SS	Df	MS	F	Level of Significance
A(Gender)	0.225	1	0.225	0.011	Not Significant
B(Type of Institutions)	4.225	1	4.225	0.223	Not significant
AxB	24.025	1	24.025	1.27	Not Significant
Within	680.3	36	18.89		
Total	708.72	39			

INTERPRETATION

The F-ratio for the main factor A Gender (Male & Female) has been found to 0.011 which is less than the table value against 1 and 36 df. So the calculated value is not significant. It means that there is no significant difference among male and female in mental health. The first hypothesis there will be no significant difference in mental health among teachers on the basis of gender is accepted.

The F-ratio for the factor B (Type of Institutions i.e. autonomous and non-autonomous) has found to be 0.223 which is less than table value against 1 and 36. It means that the second hypothesis there is no significant difference among teachers on the basis of type of institutions i.e. autonomous and non-autonomous is also accepted.

The F-ratio for interaction AxB i.e. (Gender & Type of Institutions) has found to be 1.27 which is less than the table value against 1 and 36. It means that f-ratio is not significant, the third hypothesis that there is no significant

interactional effect of gender and type of institutions on mental health taken as the independent variable is also accepted.

R) CONCLUSIONS

The purpose of any research study is to come out with some concrete conclusion to the problem taken in hand by using different stages of research. The proper data analysis and its interpretation lead to drawing out most valid and justified conclusions :-

1. No significance difference in the mental health among teachers working different colleges in Jammu city on the basis of gender. i.e. males and females.
2. There is no significance difference in the mental health among teachers working different colleges in Jammu city on the type of institutions i.e. autonomous and non- autonomous.
3. There is no significant differences in the interaction between gender (male and female) and type of institutions (autonomous and non- autonomous) when mental health scores are taken as dependent variable.

S) EDUCATIONAL IMPLICATIONS

Health of the teacher, both physical and mental, adds to the efficiency of his work. In the stress of modern civilization, lack of mental health may lead to unhappiness, failure, misery and even insanity in a large number of cases. In the present scenario, more females are entering to the field of teaching, both at school and college levels. Indian culture strongly adhere to the roles of male and female in family, which again makes more pressure on females. The women empowerment activities have improved the status of women, at the same time, brought overload to the shoulders of women. The work cultures of institutions at school and college teachers are entirely different demanding different aspect from teachers. Hence, an attempt has been made in this study to find the influence of sex and institution on occupational mental health of school and college teachers.

1. There should be seminars, programs and workshops where the teachers can discuss the problems and find the solutions related to stress, mental

health and burnout with the help of experts, psychologists and counselors.

2. The whole education system is dependent on an effective teacher as they are the nation builders so, it is necessary that teachers should be stress free and mentally healthy.
3. Meditation and Yoga should be used to overcome stress and burnout among teachers. Various meditation and yoga camps should be organized in educational institutions for improving mental health which in turn will improve teacher effectiveness.
4. There should be programs regarding mental health in order to improve cognitive and intellectual performance as well as problem solving ability among teachers.

T) SUGGESTIONS FOR FURTHER RESEARCH

The following suggestions may be incorporated for further research.

Research is never ending process, the more one plunges into the oceans of knowledge, more vistas of knowledge open for him. Usually, there are few researchers in the field of education, and they cannot solve all the problems. Hence, more and more research is required to be undertaken. Due to heavy obstacle, present investigations could not cover up all dimensions of the problem. The following suggestions may be incorporated for further research.

1. The presents study cannot be called final and comprehensive; more work can be done on different samples of different age group.
2. The present study deals with teachers teaching in autonomous and 100 from non-autonomous colleges of Jammu city, same type of work can be done on high school and higher secondary teachers and thus, comparison can be made.
3. A sample of 200 teachers was taken in the study under investigation. Same study can be done on a large sample with more variables.
4. This study can be undertaken in other districts since, it was confined to Jammu district.

BIBLIOGRAPHY

- Aggarwal, J.C. (2003). *Basic ideas of Educational Psychology*, New Delhi : Vikas Publishing House Pvt. Ltd.
- Best J.W., and Kahn (1995). *Research in education*. New Delhi : Prentice Hall Pvt. Ltd.
- Dagar, N. and Mathur, M. (2016). Mental Health of School Teachers In Relation to Their Sex and Type of School. *International Journal of Educational Planning & Administration*, 6(1), 49-53.
- Dandapani, S. (2001). *Advanced educational psychology*. New Delhi: Anmol Publications Pvt. Ltd.
- Gorsy, C., Panwar, N. & Kumar, S. (2015). Mental Health among Government School Teachers. *The International Journal of Indian Psychology*, 3(1), 117-124.
- Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of abnormal child psychology*, 33(6), 665-679.
- Hossain, MT., Islam, M.A., Jahan, N., Nahar, MT., Sarker, MJA., Rahman, MM., Deeba, F., Hoque, KE., Aktar, R., Islam, MM., Hossain, MZ., Siddiqua, L., Mahbub, Z. and Islam, M.N. (2022). Mental Health Status of Teachers During the Second Wave of the COVID-19 Pandemic: A Web-Based Study in Bangladesh. *Front. Psychiatry* 13:938230. doi: 10.3389/fpsy.2022.938230.
- Idris, F., Zulkipli, I., Nazurah, K. H., Abdul, M., Siti, R. A., Shahid, M. (2021). Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education. *BMC Med Educ (2021) 21:542*. <https://doi.org/10.1186/s12909-021-02968-2>.
- Kaur, H. (2007). Mental health of Post Graduate Students in relation to their Value-Conflict. M.Ed. Dissertation, Punjab University.

- Kumar, R. (2013). A study of relationship between teacher's mental health and appraisals of student's undesirable behaviors at elementary level. M.A. Psychology project submitted to IGNOU.
- Latif Aya M. Abd El 1, Maha Mohamed El Gaafary1 , Menan Abdel Maksoud Rabie2,Hanan Said Ez Elarab1 et al, (2018). Role of School Teachers in Pupils' Mental Health Promotion. *The Egyptian Journal of Community Medicine*, 36(1), 117-129.
- Manikandan, K. (2012). Occupational Mental Health of School and College Teachers. *International Journal of Social Science & Interdisciplinary Research*, 1 (11), 83-91.
- McLean, L., Tashia, A., Michelle, T., Manuela, J. and Kristen, G. (2017). Teachers' mental health and perceptions of school climate across the transition from training to teaching. *Teaching and Teacher Education* 65, 230-240.
- Reinke, W. M., Stormont, M., Herman, K. C., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly*, 26(1), 1.
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26(4), 1059-1069.
- Srivastava, D. K. & Khan, J. A. (2008). Disability Needs Attention Now!.*Indian Journal for the Practicing Doctor*, 5, 3-4.
- Srivastava, S. K. (2010). An assessment of Personality and Mental Health among Primary and Secondary Teachers. Retrieved on <http://medind.nic.in/haa/t05/i2/haat05i2p50.pdf>
- Venkataraman S, Patil R, Balasundaram S.(2019). The need for assessing mental health literacy among teachers: an overview. *Int J Res Med Sci*, 7:3210-5.
- Verma, L.K., and Sharma, N.R. (2008). *Advanced statistics in education and psychology*. Jammu : Narendra Publishing House.

Appendix –A

 <small>T. M. Regd. No. 564836 Copyright Regd. No. © A-73256/2008 Dt. 13.5.05</small>	Consumable Booklet of MHCL-KP <i>(English Version)</i>
Dr. Pramod Kumar (Vallabh Vidyanagar)	

Please fill the informations :		Date							
Name _____			Father's Name _____						
Date of Birth									
Gender : Male			<input type="checkbox"/>		Female			<input type="checkbox"/>	
Qualification _____				Faculty _____					
Employed : Designation _____									
Marital Status : Unmarried			<input type="checkbox"/>		Married		<input type="checkbox"/>		
Widow/Widower			<input type="checkbox"/>		Divorcee			<input type="checkbox"/>	
Area : Urban			<input type="checkbox"/>		Rural		<input type="checkbox"/>		
Family : Joint			<input type="checkbox"/>		Single			<input type="checkbox"/>	

INSTRUCTIONS
<p>On the next page both mental & physical conditions lists have been given as Section A & B respectively. Against each condition Four alternatives, viz., Always, Often, Sometimes, and Never have been given.</p> <p>Read each condition and decide your response based on the present times and put a tick mark <input checked="" type="checkbox"/> in the alternative reply cell which is close to your answer.</p> <p>Please answer to all the 11 (6 + 5) conditions.</p> <p style="text-align: right;">Your answers will be kept confidential.</p>

Scoring Table					
Section	Raw Score		z-Score	Grade	Level of Mental Health
	A	B			
Score					
Total					

Estd. 1971	www.npcindia.com	☎:(0562) 2601080
NATIONAL PSYCHOLOGICAL CORPORATION		
UG-1, Nirmal Heights, Near Mental Hospital, Agra-282 007		

Sr. No.	Do you suffer from ?	Always	Often	Some-times	Never	SCORE
---------	----------------------	--------	-------	------------	-------	-------

SECTION A

1. Anxiety & Tension
2. Restlessness
3. Nervousness
4. Loneliness
5. Hopelessness
6. Anger

Score Section A

SECTION B

1. Headache
2. Tiredness
3. Disturbed sleep
4. Indigestion
5. Acidity

Score Section B

Appendix –B**Raw scores of male**

S.No.	Scores
1.	4
2.	6
3.	5
4.	7
5.	6
6.	15
7.	7
8.	9
9.	13
10.	5
11.	7
12.	7
13.	15
14.	7
15.	4
16.	3
17.	14
18.	8
19.	5
20.	9
21.	5
22.	9

23.	3
24.	11
25.	14
26.	11
27.	7
28.	0
29.	6
30.	13
31.	12
32.	12
33.	9
34.	8
35.	3
36.	5
37.	10
38.	9
39.	10
40.	11
41.	6
42.	12
43.	4
44.	6
45.	4
46.	10
47.	9

48.	20
49.	11
50.	10
51.	5
52.	7
53.	10
54.	8
55.	6
56.	9
57.	9
58.	11
59.	13
60.	8
61.	16
62.	13
63.	16
64.	10
65.	18
66.	15
67.	13
68.	11
69.	6
70.	13
71.	11
72.	13

73.	2
74.	12
75.	4
76.	0
77.	4
78.	6
79.	8
80.	14
81.	5
82.	7
83.	6
84.	9
85.	4
86.	6
87.	6
88.	5
89.	9
90.	10
91.	5
92.	10
93.	9
94.	8
95.	8
96.	6
97.	15

98.	8
99.	3
100.	7

Raw scores of female

S.No.	Scores
1.	11
2.	8
3.	12
4.	15
5.	8
6.	13
7.	11
8.	12
9.	8
10.	8
11.	16
12.	6
13.	8
14.	11
15.	3
16.	9
17.	14
18.	5
19.	7
20.	8
21.	7
22.	13

23.	8
24.	9
25.	16
26.	12
27.	11
28.	14
29.	9
30.	9
31.	12
32.	13
33.	12
34.	12
35.	11
36.	12
37.	14
38.	15
39.	12
40.	5
41.	16
42.	9
43.	12
44.	9
45.	5
46.	14
47.	12

48.	15
49.	14
50.	5
51.	15
52.	22
53.	3
54.	6
55.	15
56.	5
57.	13
58.	10
59.	5
60.	15
61.	6
62.	12
63.	4
64.	6
65.	4
66.	10
67.	9
68.	20
69.	11
70.	10
71.	5
72.	7

73.	10
74.	8
75.	6
76.	9
77.	9
78.	11
79.	13
80.	8
81.	16
82.	13
83.	16
84.	10
85.	18
86.	15
87.	13
88.	11
89.	6
90.	13
91.	11
92.	13
93.	2
94.	12
95.	4
96.	0
97.	4

98.	6
99.	8
100.	14