

**COPY OF ADDRESSED MODIFICATIONS IN A SEPARATE
ADDENDUM**

**MENTAL HEALTH AND BURNOUT AMONG SCHOOL
TEACHERS IN WEST BENGAL**

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CHAPTER I

CONEXT OF THE STUDY

1.10 Operational Definitions

Within the field of research, an operational definition has the function of precisely delineating the specific method by which a concept or variable is measured or identified. It aims to offer a concise and reproducible structure for the methodologies employed in the research. In the present study, the researcher deemed it necessary to provide an operational definition for two constructs, namely-

- i) **Teacher's burnout:** In the present context, teacher's burnout is operationally defined as a psychological syndrome experienced by educators, characterized by chronic emotional exhaustion, detachment from students and the teaching profession (depersonalization), and a reduced sense of personal accomplishment. This condition is quantitatively assessed through standardized instruments that measure the frequency and intensity of emotional exhaustion, the degree of depersonalization, and the level of perceived personal accomplishment. Higher scores on emotional exhaustion and depersonalization, combined with lower scores on personal accomplishment, indicate a higher level of burnout in teachers.

- ii) **Mental Health:** In the present context, mental health of teachers is operationally defined as the overall state of their emotional and psychological well-being, assessed through a GHQ- 12-items questionnaire. This questionnaire evaluates various aspects of mental well-being, including emotions, experiences, and psychological welfare. Each item is rated on a 4-point Likert scale, with positive items scored from 0 (indicating constant occurrence) to 3 (indicating no occurrence), and negative items scored from 3 (indicating constant occurrence) to 0 (indicating no occurrence). The total score, ranging from 0 to 36, reflects the teacher's mental health, with lower scores indicating better mental

well-being and higher scores indicating poorer mental health. This operational definition offers a clear, quantifiable measure of teachers' mental health by capturing the frequency and intensity of both positive and negative mental experiences.

- iii) **Semi-Urban habitation:** In the present context, semi-urban habitation refers to areas in certain districts of West Bengal that have a mix of both rural and urban features. These places are usually found on the edges of larger towns or cities, where people have access to basic services like schools, healthcare, and transport, but not the full range of facilities you might find in a big city. The lifestyle in these areas combines elements of both rural simplicity and urban convenience, making them unique. This definition helps us understand the living conditions and social life in these specific parts of West Bengal.

CHAPTER - III

METHOD AND PROCEDURE OF THE STUDY

The proper methodology of the study is the central point on which the success of any research work depends. As the characteristic of the different problem is completely different, a proper methodology should be used according to the characteristic of the problem. The method of study encompasses the thorough procedures involved in gathering and analysing data, as well as the systematic approach to solving the research problem. This chapter is structured into two distinct sections: Methods and Procedure. The methods section is subdivided into the study's design, the population and sample, the description of variables, and the instruments used. The procedure section, however, is subdivided into the collection, quality assessment, tabulation, and analysis of data.

3.1 Method

'The research method, that is, the actual data collection and data analysis method is described and justification is provided on why the particular research method was chosen.' (Goundar, 2012). In this study, the prime objective was to examine the occurrence and determinants of burnout and mental health problems among high school teachers in the East Medinipur, West Medinipur, Bankura, Purulia, Jhargram and Hooghly districts of West Bengal, India. The researcher conducted a survey of high school teachers in in West Bengal. The samples were selected using the purposive sampling technique to guarantee they accurately reflect the entire population and then the researcher selected appropriate samples to implement Burnout and mental health of acquired socio-demographic information to understand the present status of teacher's burnout and mental health.

3.1.1 Research Design

Research design as “Plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis” (Creswell, 2009). “The term research design refers to the entire process of planning and carrying out a research study. It is the process of visualization of the entire process of conducting empirical research before its commencement.” (Kabir, 2016). A cross-sectional survey design is a method that quantitatively describes the beliefs, trends, attitudes, views, or values of a group by investigating samples taken from that population. This study used a cross-sectional survey research design to statistically assess burnout and mental health among high school teachers. It also includes quantitative analysis and interpretation of the collected data.

3.1.2 Population

West Bengal has an estimated population of around 420,000 secondary and higher secondary school teachers. This estimate encompasses the number of teachers employed in government schools, which is 210,000, government-aided schools, which is 80,000, and private schools, which is 130,000. The data used for this figure is derived from the most recent educational records, including those from the Unified District Information System for Education (UDISE), the West Bengal Board of Secondary Education (WBBSE), and the West Bengal Council of Higher Secondary Education (WBCHSE). The population for this study consisted of teachers from secondary and higher secondary schools connected with the WBBSE and WBCHSE in six districts of West Bengal. The districts encompassed are East Medinipur, West Medinipur, Bankura, Purulia, Jhargram, and Hooghly.

3.1.3 Sample

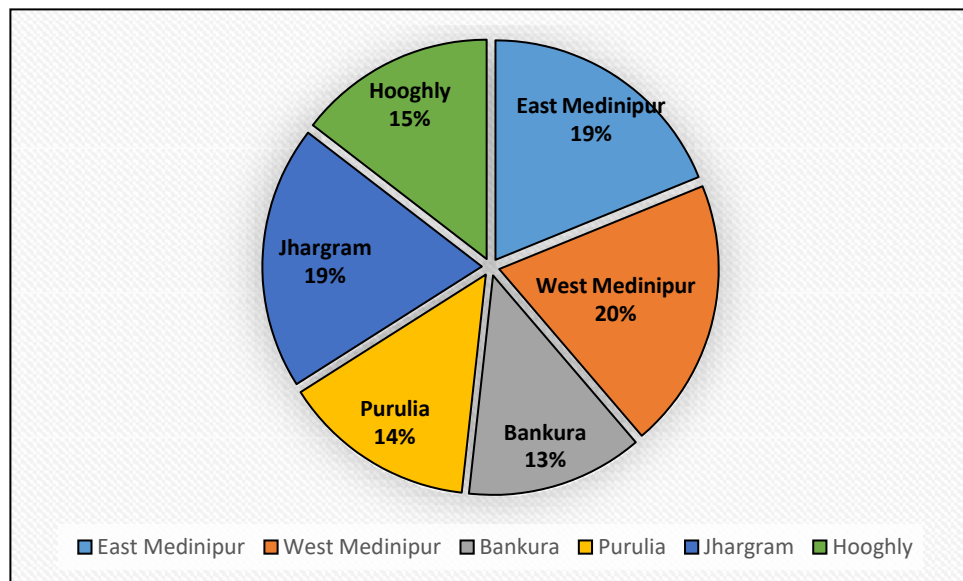
With a 95% confidence level and a 5% margin of error, the required sample size for a survey-assuming the highest possible variability ($p = 0.5$)-is approximately 384 respondents (Krejcie & Morgan, 1970; Cochran, 1977). This indicates that a sample of 384 participants would generally provide a reliable representation of

the population within these parameters. Therefore, the present study surveyed a sample of 653 teachers employed in secondary and higher secondary educational institutions, which is more than sufficient to accurately capture the population's characteristics, ensuring strong validity for most types of survey research. The researchers focus on this particular population, purposive sampling was employed as a technique to ensure the relevance of the data gathered.

Table 3.1 Sample Distribution by Districts

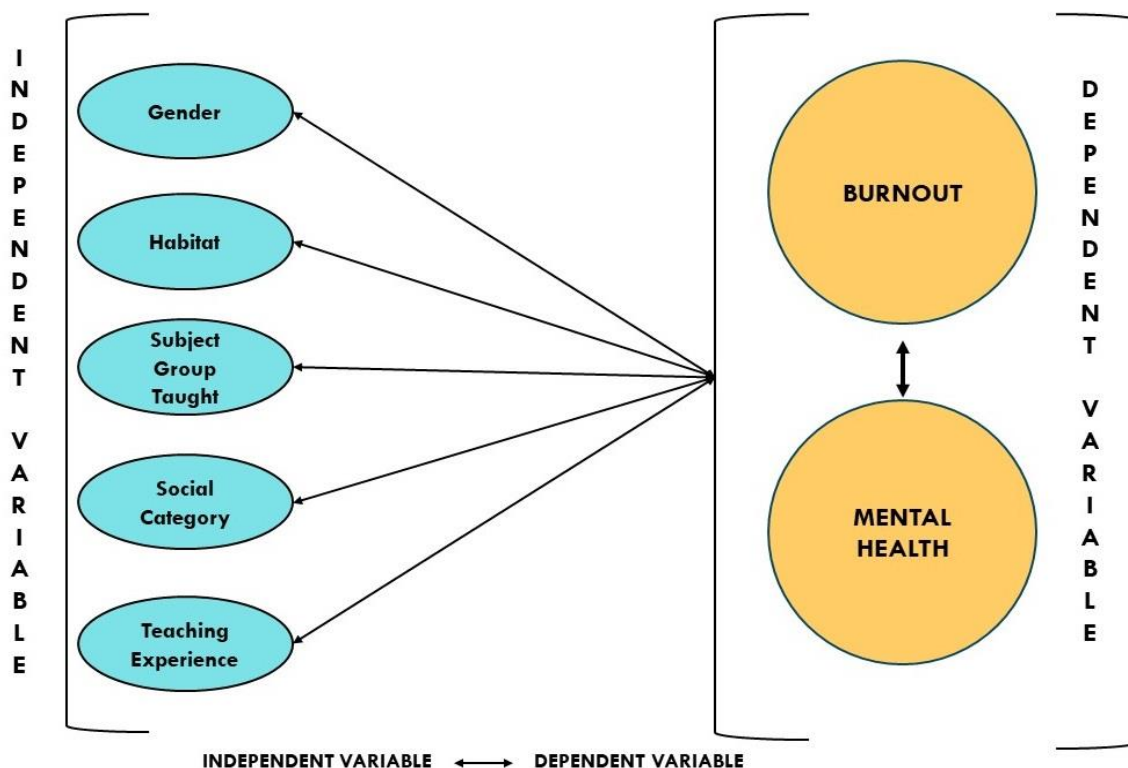
District	No. of Sample	Percent of Total
East Medinipur	123	18.84%
West Medinipur	130	19.90%
Bankura	85	13.02%
Purulia	93	14.24%
Jhargram	127	19.45%
Hooghly	95	14.55%
Total	653	100%

3.1 Pie Chart showing sample distribution by districts



3.1.5 Interaction between variables

Figure 3.6 Diagram showing Variables interaction



3.1.6 Tools Used for Data Collection

In the current study, three main instruments were used for obtaining data on burnout and mental health from the teachers at high schools, along with one basic information schedule.

Instrument 1: The Maslach Burnout Inventory (MBI-ES) (Educators Survey)

The Maslach Burnout Inventory (MBI-ES) is a widely used tool in psychology designed specifically to measure the extent of burnout experienced by educators within their professional settings. It originated from the development of the MBI-HSS by Maslach and Jackson in 1981. Additionally, the MBI-ED was derived from the original scale, consisting of 22 items that evaluate three key dimensions: emotional exhaustion (EE) with 9 items, depersonalization (DP) with 5 items, and personal accomplishment (PA) with 8 items.

Table 3.3 Showing Dimensions and Number of Items

Sl No.	Dimensions	Items number	Total no. of items
1.	Emotional exhaustion	1, 2, 3, 6, 8, 13, 14, 16, 20	9
2.	Depersonalization	5, 10, 11, 15, 22	5
3.	Personal accomplishment	4, 7, 9, 12, 17, 18, 19, 21	8

Scoring norms

Table 3.4 Showing scoring norms of the inventory

Responses	Interpretation
0	Never
1	A few times
2	Once a month or less
3	A few times a month
4	Once a week
5	A few times a week
6	Everyday

*There was no reverse scoring

Levels of Burnout

Table 3.5 Levels of Burnout

Sl No.	Levels of Burnout	Emotional Exhaustion	Depersonalization	Personal Accomplishment
1.	High	≥ 27	≥ 10	0-33
2.	Moderate	19-26	6-9	34-39
3.	Low	0-18	0-5	≥ 40

Reliability and Validity

Maslach established the internal consistency using Cronbach's co-efficient alpha among 1316 samples, where the value of reliability of emotional exhaustion, depersonalization, and personal accomplishment were found to be 0.90, 0.79, and 0.71 respectively. Again, Maslach showed the test-retest reliability co-efficient among 53 sample units, which was found to be 0.82, 0.60 and 0.80 respectively. In present scenario, a pilot study was conducted by the researcher. Internal consistency of each dimension of burnout were separately computed upon 201 sample units in the current study. As the original English version of MBI-Ed was used in the study, the content, concurrent and face validity were maintained by the researcher taking the help of his supervisor. Following table showed the internal consistency of data in current area of research-

Table 3.6 Showing reliability of the burnout inventory

Sl No.	Dimensions	Item number	Cronbach's Alpha (n=201)
1.	Emotional exhaustion	1, 2, 3, 6, 8, 13, 14, 16, 20	0.77
2.	Depersonalization	5, 10, 11, 15, 22	0.63
3.	Personal accomplishment	4, 7, 9, 12, 17, 18, 19, 21	0.72

Instrument 2: General Health Questionnaire

The GHQ-12, developed by Dr. David Goldberg and Dr. Peter Williams in 1988, comprises 12 items. Each item measures the intensity of a mental issue experienced in the previous weeks, utilizing a 4-point Likert-type scale ranging from 0 to 3. The score was utilized to calculate a comprehensive score that ranged from 0 to 36. The positive items were adjusted from a rating of 0 (indicating constant occurrence) to a rating of 3 (indicating no occurrence), while the negative items were adjusted from a rating of 3 (indicating constant occurrence) to a rating

of 0 (indicating no occurrence). Six items were positively phrased and rest of six items were negatively phrased in this questionnaire. Conversely, each element within the GHQ-12 is specifically formulated to evaluate a certain facet of mental well-being, encompassing emotions, occurrences, and psychological welfare, without a distinct distinction between affirmative and adverse elements. A lower score on the General Health Questionnaire (GHQ-12) suggested improved mental well-being and High scores indicate worse health.

Scoring norms

Table 3.7 Showing scoring norms of the questionnaire

Statements	Always	-	-	Never
Positive	0	1	2	3
Negative	3	2	1	0

Reliability and Validity

In present scenario, a pilot study was conducted by the researcher. Internal consistency of GHQ was computed upon 201 sample units in the current study. As the original English version of GHQ was used in the study, the content, concurrent and face validity were maintained by the researcher taking the help of his supervisor. Following table showed the internal consistency of data in current area of research-

Table 3.8 Showing reliability of the GHQ inventory

Sl No.	Inventory	Item number	Cronbach's Alpha (n=201)
1.	General Health Questionnaire	1 - 12	0.602

Instrument 3: Basic Information Schedule

A schedule of required information about the teacher was prepared and placed with the main instrument. This schedule seeks information about teacher's gender, habitation, subject group taught, social category and teaching experience. As per ethics of research, the name or other personal identification information of the teacher was not collected in the information schedule.

3.2 Procedure

This part provides a comprehensive explanation of the procedures involved in administering the test instruments to collect data, as well as the subsequent steps of filtering, tabulating, and analysing the results.

3.2.1 Data Collection

During the school visit, the researcher approached the headmasters/headmistresses of the individual schools to explain the objective and method of the study. The researcher provided a clear explanation of the confidentiality terms regarding the provided information and data. Additionally, they submitted an authorization letter, given by the supervisor on behalf of the Department of Education at Jadavpur University, to get the necessary data. Upon obtaining approval from the school administration, the researcher commenced the process of gathering the real data. The researcher sought a total of 55 schools across all six districts, of which 45 schools obtained consent for data collection from their teachers. Upon obtaining the necessary authorization, two instruments were provided to the participating teachers. The participants were not given a specific time limit to complete the surveys. The questionnaires were completed by 95% of all the teachers in around 30 minutes. Data collection occurred exclusively on weekdays from 2nd January 2023 to 26th May 2023.

3.2.2 Data Quality

695 teachers completed the questionnaires. However, 42 individuals either failed to complete the surveys or supplied insufficient information, resulting in their

CHAPTER V

DISCUSSION AND CONCLUSION

5.2 Discussion

The main focus of this study was to examine the occurrence and determinants of job-related burnout and mental health problems among high school teachers in West Bengal. The primary goal was further delineated into four subordinate objectives as –

- i) To know how far the school teachers in West Bengal have experienced job related burnout in terms of emotional exhaustion, depersonalization, and personal accomplishment.
- ii) To understand the present state of mental health of school teachers in West Bengal.
- iii) To see whether personal and professional characteristics of the school teachers result in variation of their job-related burnout and mental health.
- iv) To examine the relationship between teachers' burnout along with its different facets and their mental health.

Objective 1: The findings showed that most teachers experienced low emotional exhaustion, high levels of depersonalization, and a strong sense of personal accomplishment. This could be because many teachers find fulfillment in watching their students succeed, which helps counterbalance emotional fatigue. Additionally, supportive educational environments may also contribute to this resilience. Interestingly, there were no similar studies in West Bengal, but research by Costa & Silva (2012) indicated that younger teachers, particularly those aged 20-30, tend to experience higher levels of emotional exhaustion,

depersonalization, and personal accomplishment. On the other hand, teachers in their early thirties reported lower levels in these areas. Other studies have identified time constraints, discipline issues, and conflicting values as significant contributors to burnout (Skaalvik & Skaalvik, 2017). Moreover, research suggests that female teachers are more prone to emotional exhaustion and reduced personal achievement, while male teachers are more likely to experience depersonalization (Vercambre et al., 2009). Recent findings emphasize that factors like heavy workloads, lack of support, and high job demands continue to play a critical role in teacher burnout (Kreuzfeld & Seibt, 2022; Merzlyakova, 2022). A study highlighted that younger teacher, particularly those within their first five years of teaching, are especially susceptible to burnout due to the steep learning curve and the pressure to meet performance expectations (Smith & Harper, 2024).

Objective 2: The study revealed that teachers in West Bengal generally have moderate mental health. Similar results were found on a study that showed majority of high school teachers were moderately mentally healthy (Capone & Petrillo, 2018; Rosli & Bakar, 2021). A study in Japan also found that female teachers with poor mental health were more likely to feel dissatisfied with their jobs and develop minor psychiatric issues (Nagai et al., 2007). Additionally, primary school teachers have been shown to experience high levels of psychological distress, underscoring the need for mental health support (Titheradge et al., 2019). In recent years, research has demonstrated that high job demands and a lack of social support are detrimental to teachers' mental health (Borrelli et al., 2014; Peele & Wolf, 2020). Moreover, mental health among primary and secondary school teachers is often lower than that of the general population, with common symptoms including compulsiveness, interpersonal difficulties, paranoia, and depression (Li, 2016). A study further emphasized the value of school-based mental health interventions, showing that regular mental health check-ins and peer support groups can significantly improve teachers' mental health (Jones & Lee, 2024).

Objective 3: The study found that male teachers belong to the semi-urban areas showed higher levels of emotional exhaustion, similar results were found in different researches (Patel & Sharma, 2023; Wang et al., 2022;). Another, results teachers who teach science subjects showed higher levels of emotional exhaustion, similar results were found in different researches (Brown & Jones, 2023; Smith et al., 2022; Lee & Kim, 2024). Again, teachers belong to the Scheduled Tribe category showed higher levels of emotional exhaustion, this finding is supported by similar researches (Das & Verma, 2022; Singh & Gupta, 2023; Kumar & Patel, 2024). While comprehensive studies on emotional exhaustion among male teachers are scarce, previous research by Vercambre et al. (2009) indicated that female teachers are generally more prone to emotional exhaustion, while male teachers tend to experience depersonalization. Research by Kreuzfeld & Seibt (2022) also suggests that female educators often overextend themselves, leading to increased emotional fatigue and, in some cases, early retirement. Although research on the impact of teaching specific subjects like science on emotional exhaustion is limited, the demands of teaching complex subjects can contribute to higher levels of burnout (Merzlyakova, 2022). Recent studies continue to explore the roles of gender and subject specialization in burnout, indicating that these factors do indeed influence teachers' emotional well-being (Pachaiyappan & Raj, 2012; Ravikumar & Shanmugam, 2022). Additionally, the study observed that teachers in rural areas reported more mental health issues than those in semi-urban areas, though this difference was not statistically significant. Other studies have shown that poor workplace environments are a strong predictor of poor mental health among teachers (Peele & Wolf, 2020). Interestingly, language teachers were found to have better mental health than those teaching arts and science, possibly because of the autonomy and flexibility associated with language instruction. A study noted that teachers in rural areas face unique challenges, such as isolation and limited resources, which may contribute to higher rates of emotional exhaustion (Garcia & Thompson, 2024).

Objective 4: The study found a weak positive correlation between teaching experience and burnout, suggesting that the longer a teacher has been in the profession, the more likely they are to experience job-related burnout. This finding aligns with previous research (Faskhodi & Siyyari, 2018; Gicheva, 2020; Dias et al., 2021). Additionally, a negative correlation was observed between mental health and teaching experience, indicating that longer years of service are associated with poorer mental health, possibly due to accumulated stress, burnout, and increasing responsibilities (Galloway et al., 1984; Galgotra, 2013). This complex relationship highlights the need for personal resilience and organizational support to help mitigate these challenges. Recent studies have also underscored the importance of support systems in addressing the ongoing stress experienced by more seasoned teachers (Galgotra, 2023; Faskhodi & Siyyari, 2021). A study highlighted that veteran teacher, particularly those with over 20 years of experience, often feel undervalued and experience burnout related to a perceived lack of recognition and support from their institutions (Anderson & White, 2024).