

# Stress, anxiety, work-related burnout among primary health care worker: A community based cross sectional study in Kolar

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## ABSTRACT

**Background:** Because of Primary Health care workers most of the national programmes run efficiently at grass root level. Workplace stress is alteration in one's physical or mental state in response to workplaces. Anxiety related to work among them is increasing and also Burnout. **Objectives of the Study:** To assess stress, anxiety and burnout related to work among ASHA workers and to assess the socio-demographic factors influencing the stress, anxiety and burnout related to work among ASHA workers. **Methodology:** This was a community based cross sectional study carried out for a period of 6 months from January 2019 to July 2019 at Kolar, India. Multistage cluster sampling was applied. From the selected 8 PHC all ASHA workers were part of the study. Sample size was calculated based on previous study with effect size of 1.5 from which final sample size was 150. Ethical clearance was obtained from the Institutional Ethical Committee (IEC) before the start of study. Written Informed consent was taken from the study. All data were entered in excel sheet and analyzed using SPSS version 22. **Results:** 150 ASHA workers were interviewed. 75.5% belonged to Nuclear family, 50.7% belonged to age group of 31-40 years, 86.7% perceived that received payment for the work was low, 60.7% had to spend more than 2 hours for walking for the official work, 72% had work experience less than 10 years and 35.3% had working hours more than 8 hours. 45.3% had mild to moderate anxiety, 9.3% had Moderate Anxiety according to Zung Anxiety scale, 54% had moderate stress according to Cohen's perceived stress scale and 23.3% had personal burnout, 33 (22%) had work-related burnout and 4 (2.7%) had Client related Burnout of Moderate levels according to Copenhagen Burnout Inventory scale. **Conclusion:** Socioeconomic status, Training received before joining work, Type of work, perceptions regarding Work was found to be important factors affecting the mental health. Screening regularly for stress, anxiety and work-related burnout at work place is the need of the hour.

**Keywords:** Anxiety, ASHA, burnout, Stress

## Introduction

Workplace stress can be construed as the alteration in one's physical or mental state in response to workplaces that pose an appraised challenge or threat to that employee sometimes influenced by toxic work environment, negative work load,

isolation, difficult relationships with administrators and/or coworkers and sometimes attributed to total hours worked.<sup>[1]</sup> Work stress influences the development of subjective stress and psychosomatic complaints.<sup>[2]</sup> Stress when inherent on health can negatively impact health care professionals, leading to increased depression, decreased job satisfaction and psychological distress.<sup>[3]</sup> Generalized Anxiety Disorder (GAD) is characterized by persistent and excessive worry about a number of different things. People with GAD may anticipate disaster and may be overly concerned about money, health, family, work or other issues. Individuals with GAD find it difficult to control their

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worry.<sup>[4]</sup> A certain amount of stress and anxiety is normal at work as well as at home. However, persistent, excessive and irrational anxiety that interferes with everyday functioning is often an indication of an anxiety disorder.<sup>[5]</sup> There are various types of workplace-related anxieties which are partly independent clinical phenomena deserving special diagnostic and therapeutic attention.<sup>[6]</sup> Burnout is a well-documented psychological response to chronic job stressors which consists of three components-emotional exhaustion, cynicism and personal efficacy. Higher burnout is specially noted among those with heavy workload, inadequate training, inadequate staffing, job dissatisfaction, organizational support and negative workplace conditions.<sup>[7]</sup> Burnout is viewed as the exhaustion of physical or emotional strength as a result of prolonged stress or frustration. Increased burnout may lead to more absenteeism, personal turnover and sometimes also substance abuse. The employee's stress with her job is most preliminary factor that hugely influences the quality of work and individual productivity.<sup>[8,9]</sup>

Primary Health care workers are the ones because of which there is systematic, well ordered and efficient running of most of the national programmes at grass root level so that the services reaches the beneficiaries uninterrupted. Health care workers comprise an important cohort who are affected by emotional states and stress because of their unique work environment.<sup>[10]</sup> Work is good for mental health but a negative working environment can lead to physical and mental health problems. Low honorarium, tedious register work, long meeting usually out of duty hours, short attendance of children and adolescent girls in spite of repeated information, education, communities activities, no adequate space have been a deep routed issues among primary health care workers.<sup>[11,12]</sup> At the primary level in India, the healthcare workers such as lady health visitor (LHV), auxiliary nurse midwives (ANM), health assistants, Accredited Social Health Activists (ASHA), Anganwadi workers (AWW) are the first level of contact to health system in the periphery.<sup>[13]</sup> Accredited Social Health Activists (ASHA) introduced under National Rural health mission take steps to create awareness and provide information to the community on determinants of health such as nutrition, basic sanitation & hygienic practices, healthy living and working conditions, information on existing health services and the need for timely utilization of health & family welfare services. ASHA can be seen as important part of the program for bringing changes in the community, engaging community in health planning, ensuring equitable accessibility of all to health services.<sup>[14]</sup> So the study was started with aim to assess the mental health status among ASHA workers with objectives to assess stress, anxiety and burnout related to work among ASHA workers and to assess the socio-demographic factors influencing the stress, anxiety and burnout related to work among ASHA workers.

## Materials and Methods

The present study is a community based cross sectional study carried out for a period of 6 months from January 2019 to July

2019 at Kolar, India. Cluster sampling was applied. In stage- one, Kolar district having 6 taluks from which Kolar was randomly picked. In stage- two out of 16 Primary Health Center (PHC) of Kolar taluk, 8 PHC were randomly selected. Those selected PHCs' were Vemgal, Sugutur, Narsapur, Annehalli, Kembodi, Hutturu, Kembodi and Holur. From the selected 10 PHC all ASHA workers were part of the study. Considering the reported prevalence of stress which is 52% from the previous study, with 10% absolute precision and 95% confidence level, the required number of subjects is 99.<sup>[15]</sup> With cluster effect of 1.5, the final sample size was rounded off to 150. The sample size was calculated by *n* Master Version 2.0, CMC Vellore, Tamil Nadu, India. All ASHA workers working for at least six months were included in the study. Those participants who are already diagnosed with any mental health abnormalities and who do not consent were excluded from the study. ASHA workers were selected accordingly [Figure 1]. All data collected by Interview technique. Regarding socio-demographic profile, pretested semi-structured questionnaire was used. Stress was assessed by Cohen's Perceived Stress scale which is a Likert scale, widely used psychological instrument for measuring the perception of stress. It measures the degree to which situations in one's life are appraised as stressful. Cut off were Low stress (0-13), Moderate stress (14-26) and High stress (27-40).<sup>[16]</sup> Anxiety assessed by Zung Anxiety scale (ZAS) which is a 20-item self-report assessment device built to measure anxiety levels, based on scoring in 4 groups of manifestations which are cognitive, autonomic, motor and central nervous system symptoms. Zung Anxiety scale cut off were used and classified as Normal (20-44), Mild to moderate Anxiety (45-59), Moderate to severe Anxiety (60-74) and Severe Anxiety (75-80).<sup>[17]</sup> Burnout assessed using Copenhagen's Burnout Inventory which consists of three scales measuring personal burnout, work-related burnout and client-related burnout, for use in different domains. Copenhagen Burnout inventory with cutoffs used were No Burnout (less than 50), Moderate Burnout (50-74) High Burnout (75-99).<sup>[18]</sup> All data entered in Windows Microsoft office excel sheet, analyzed using SPSS v 22 (IBM Corp, USA). Descriptive statistics applied where ever needed and to compare between groups t-test was used and to check for association between factors Chi-square was applied with level of significance defined as *P* value less than 0.05. Correlation between Stress, Anxiety and Burnout was seen and Binary Linear regression was done. Ethical clearance was obtained from the Institutional Ethical Committee (IEC) before the start of study. Written Informed consent was taken from the study participants by informing them about the benefits and risks involved in the study. Modified BG Prasad Classification 2019 was used to assess the socio-economic classification of study participants.<sup>[19]</sup>

## Results

Totally, 150 women participants were part of the study. 93 (62%) had completed high school, 148 (98.7%) were married, 113 (75.5%) belonged to Nuclear family, 76 (50.7%) belonged to age group of 31-40 years. 51 (34%) belonged to Modified BG Prasad classification 2019. Out of 150 study participants,

Flow chart of Selection of ASHA workers

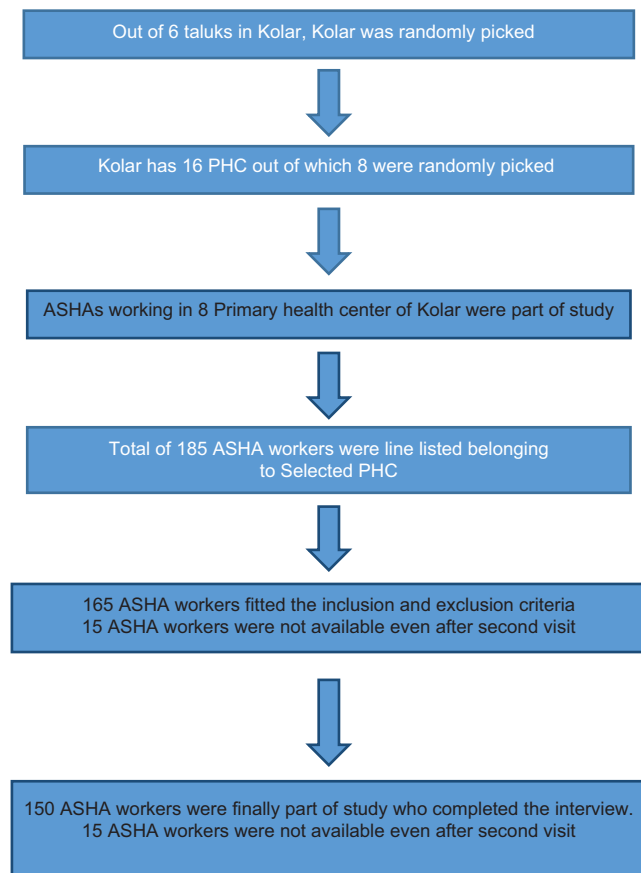


Figure 1: Selection of ASHA workers

14 (9.4%) had medical illness, 142 (94.7%) had received training before appointment to job, 88 (58.7%) had no job insecurity, 130 (86.7%) perceived that received payment for the work was low, 91 (60.7%) had to spend more than 2 hours for walking for the official work, 108 (72%) had work experience less than 10 years and 53 (35.3%) had working hours more than 8 hours [Table 1].

Out of 150 study participants, 65 (43.3%) had mild to moderate, 11 (7.3%) had moderate to severe and 4 (2.7%) had severe anxiety levels according to Zung Anxiety scale. Among same participants, 48 (32%) had low stress, 81 (54%) had moderate stress and 21 (14%) had high stress according to Cohen’s perceived stress scale. With respect to burnout, 12 (8%) had high personal burnout, 13 (8.7%) had high Work-related burnout and 10 (6.7) had high client related burnout [Table 2].

**\*t-test# ANOVA**

With respect to Perceived stress scores, participants aged 41-50 years, participants who had completed graduation, participants who are married, those who have not received training had higher scores however it was not statistically significant. Participants having some medical illness, who perceived their workload as high, perceived their payment

Table 1: Distribution of study participants according to their socio-demographic profile and work-related status

Socio-demographic profile and work-related status		Frequency	Percent
Age in years	20-30	33	22.0
	31-40	76	50.7
	41-50	34	22.7
	51-60	7	4.7
Educational status	Higher primary	11	7.3
	High School	93	62.0
	Pre-university	35	23.3
	Graduates	11	7.3
Marital Status	Married	148	98.7
	Separated/Divorced	2	1.3
Type of family	Nuclear	113	75.3
	Joint family	37	24.7
Modified BG Prasad Classification 2019	I	7	4.7
	II	38	25.3
	III	51	34.0
	IV	34	22.7
	V	20	13.3
Medical Illness	No illness	123	82
	Type II DM	20	13.3
	Hypertension	4	2.7
	Dog bite	3	2.0
Training Received	Yes	142	94.7
	No	8	5.3
Job Insecurity	Present	62	41.3
	Absent	88	58.7
Perceived work load	Low	21	14.0
	Medium	32	21.3
	High	97	64.7
Perceived payment	Low	130	86.7
	Medium	16	10.7
	High	4	2.7
Time Spent in Walking For Official Work	<2 h	59	39.3
	>2 h	91	60.7
Work Experience	<10 years	108	72.0
	>10 years	42	28.0
Working Hours	<8	97	64.7
	>8	53	35.3

received as medium, participants who had working hours more than 8 hours had higher scores and this difference was statistically significant [Table 3].

With respect to Zung scores, participants aged 51-60 years, married participants, who perceived that their workload as high, participants having experience more than 10 years had higher scores however it was not statistically significant. Participants with some medical illness, who had not received any training had higher scores which was statistically significant difference [Table 3].

With respect to burnout, participants having work experience more than 10 years, working more than 8 hours per day had higher scores in Personal burnout, participants with job insecurity had higher scores with work-related burnout and participants having

**Table 2: Distribution of Study participants according to prevalence of Anxiety, Stress and Burnout**

Mental health status	Severity	Frequency	Percent
Anxiety	Normal	70	46.7
	Mild to moderate	65	43.3
	Moderate to severe	11	7.3
	Severe	04	2.7
Stress	Low stress	48	32
	Moderate stress	81	54
	High stress	21	14
Personal Burnout	No	93	62
	Moderate	45	30
	High	12	8
Work-related burnout	No	100	66.7
	Moderate	37	24.7
	High	13	8.7
Client Related Burnout	No	105	70.0
	Moderate	35	23.3
	High	10	6.7

job insecurity had higher scores in Client related burnout which had statistically significant difference [Table 3].

There was positive correlation between Stress score and Anxiety scores with Personal, Work and Client related Burnout scores with statistically significant *P* value indicating an evidence of relationship. Logistic regression analysis showed higher odds of stress, burnout among those who had some medical illness, training received however it was not statistically significant [Table 4].

## Discussion

The present study was a cross sectional study carried out for a period of 6 months which covered around 3 primary Health centers. Around 150 study participants were included in the study. Totally, 93 (62%) had completed high school, 148 (98.7%) were married, 113 (75.5%) belonged to Nuclear family, 51 (34%) belonged to Modified BG Prasad classification 2019, 76 (50.7%) belonged to age group of 31-40 years, 14 (9.4%) had medical illness, 142 (94.7%) had received training before appointment to job, 88 (58.7%) had no job insecurity, 130 (86.7%) perceived that received payment for the work was low, 91 (60.7%) had to spend more than 2 hours for walking for the official work, 108 (72%) had work experience less than 10 years and 53 (35.3%) had working hours more than 8 hours. Out of 150 study participants, 65 (45.3%) had mild to moderate anxiety, 14 (9.3%) had Moderate Anxiety according to Zung Anxiety scale, 81 (54%) had moderate stress according to Cohen's perceived stress scale and 35 (23.3%) had personal burnout, 33 (22%) had work-related burnout and 4 (2.7%) had Client related Burnout of Moderate levels according to Copenhagen Burnout Inventory scale.

Study done by Spoorthy Sagar *et al.* in Bangalore among public health care workers which included Lady Health Visitor, Auxiliary

Nurse Midwives, Health Assistants, ASHA workers and AWWs showed 37.1% (52) had mild stress, 52.1% (73) were moderately stressed, 10.7% (15) were severely stressed.<sup>[15]</sup> Study done by Bhatnagar *et al.* showed that 71.5% AWWs have moderate stress level.<sup>[20]</sup> Study done by Shahsank *et al.* showed that the schedule of working health care professionals is ever growing which could be possible factor for increased stress.<sup>[21]</sup> Study done by Ashwathy *et al.* among Anganwadi workers at Kasargod, Kerala showed 83.3% had moderate levels and 16.7% had severe levels of stress.<sup>[22]</sup> All these studies have shown that Emotional labor and burnout related to work have widely confederated with jobs that demand high public interaction and also have showed that Community health workers who are associated with people and need interaction with people have higher chances of stress and work-related burnout. Study done by Li *et al.* showed that low salary, heavy workload and few promotion opportunities were the most frequently cited workplace stressors.<sup>[23]</sup> Study done by Pandey and Singh using Copenhagen Burnout inventory among ASHA workers showed higher scores in which mindfulness based intervention was used to address work-related stress burnout.<sup>[24]</sup> The high prevalence of burnout among Health care professionals was also noted in study done by Dyrbye *et al.*<sup>[25]</sup> Study done by Gracia *et al.* showed 12% among European professional health workers had high burnout which was also important predictor for Stress.<sup>[26]</sup> All these studies have shown that stress related to work has ramified primary health workers physical and mental health ascending to professional burnout syndrome mainly because of work situations at field level. The present study showed higher scores of Burnout among various factors although with no statistical significant difference. Study done by Mudgal *et al.* showed health workers from a lower socioeconomic status report higher levels of stress and suffer more compared to those from higher socioeconomic levels which was similar to our study.<sup>[27]</sup> Study done by Jordan *et al.* among Australian midwives showed Work burnout and Client burnout was around 15% and strongest associations between Burnout and midwives' characteristics were age <40, work and work experience <10 years.<sup>[28]</sup> Younger age, less working hours, better organizational structure in terms of incentive policy has been shown as powerful predictors for burnout among primary health care workers.<sup>[29-31]</sup>

In a study done by Khosravi *et al.* there was a significant relationship between work experience and the frequency of burnout, and the frequency of overall burnout was higher in the participants who had more work experience. Possible reasons could be professional status and the impossibility of career advancement, the heavy workloads and the stresses of rural life and the education challenges it brings for their children, when primary health care providers have more work experience.<sup>[32]</sup> Studies have shown that Burnout among primary health care workers few factors like inadequate working conditions with lack of human and physical resources leads to work overload, difficulty with teamwork despite being satisfied with the work environment can be a common reason for Burnout.<sup>[33-35]</sup> ASHAs need to have clarity regarding their roles and responsibilities which may reduce the impact on mental health which can be addressed by frequent quality training programs and

**Table 3: Distribution of Study participants according to scores of Anxiety, Stress and Burnout scales**

Socio-demographic factors	Groups	Mean±Std. Deviation				
		PSS scores	Zung scores	Personal Burnout	Work-Related Burnout	Client Related Burnout
Age in years	20-30	15.3±4.2	44.1±6.7	48.2±14.2	43.1±17.3	39.8±18
	31-40	15.3±4.3	42.1±7.0	46.1±16.1	42.8±18.7	42.8±19.1
	41-50	17.2±4.8	44.5±6.9	52.6±17	49.4±18.1	48±18.8
	51-60	16.8±5.5	46.8±9.5	55.3±18.1	46.4±21.4	40.4±15.7
	<i>P</i> <sup>#</sup>	0.1	0.1	0.16	0.34	0.3
Education	Higher primary	14.2±4.7	41.4±7.8	43.1±20.1	37.1±18.4	43.5±15.1
	High School	15.7±4.2	42.9±6.7	49.6±15.9	45.1±17.4	45.2±21
	Pre-university	16.2±5.2	42.4±8.1	45.7±16.6	45±21.1	40±17.4
	Graduates	17.5±3.7	43.8±7.6	54.1±8.7	41.1±18.1	36.7±16.1
	<i>P</i> <sup>#</sup>	0.35	0.8	0.28	0.5	0.3
Marital Status	Married	15.8±4.5	42.9±7.1	48.4±16.2	44.8±20.1	43.3±19.6
	Unmarried	14.5±4.9	40.0±5.6	52.2±14.2	43.3±33	33.3±20.1
	<i>P</i> <sup>*</sup>	0.6	0.8	0.7	0.8	0.1
Type Of Family	Nuclear	15.9±4.4	42.6±7.4	48.5±16.6	45.1±18.8	44.2±20.1
	Joint	15.5±4.6	43.3±6.3	48.4±14.7	42±17.3	40.1±17.8
	<i>P</i> <sup>*</sup>	0.6	0.7	0.9	0.4	0.2
Medical illness	None	15.6±4.3	42.7±7.1	48.1±16.1	44±18.8	43.2±19.9
	Illness	18.0±5.5	47.7±7.4	51.1±17.4	46.4±15.4	43.1±17.6
	<i>P</i> <sup>*</sup>	0.03	0.02	0.3	0.5	0.9
Training Received	Yes	15.8±4.5	37.1±4.1	48.7±16.3	44.9±18.3	43.1±19.1
	No	17.0±3.1	43.1±7.1	45.1±13.4	38.2±19.1	36.7±18.1
	<i>P</i> <sup>*</sup>	0.4	0.02	0.5	0.3	0.35
Job insecurity	Yes	15.7±4.4	42.6±6.1	51.3±17.3	49.1±19.2	42.3±18.7
	No	15.9±4.5	42.8±7.7	46.3±15.1	41.3±17.2	38.8±17.2
	<i>P</i> <sup>*</sup>	0.79	0.8	0.07	0.01	0.001
Perceived work load	Low	13.4±3.1	40.6±4.9	44.4±17.6	41.8±21.2	49±26.4
	Medium	15.3±5.2	42.6±8.1	47.1±16.9	41.9±19.1	41±18.7
	High	16.5±4.3	43.2±7.1	49.8±15.6	46.1±17.4	42.6±18.1
	<i>P</i> <sup>#</sup>	0.01	0.3	0.29	0.43	0.3
Perceived payment received	Low	15.7±4.5	42.5±7.0	47.9±16.1	44.2±18.8	43.2±19.9
	Medium	17.7±4.0	44.6±8.6	53.9±17.5	50.4±17.6	46±17.7
	High	13.7±2.5	43.2±4.5	44.7±18.5	32±13.3	30±16.4
	<i>P</i> <sup>#</sup>	0.01	0.5	0.7	0.3	0.6
Time spent walking during work	<2 h	15.9±4.7	43.6±7.4	48.0±16.1	45.5±17.1	46.7±17.2
	>2 h	15.6±3.9	40.7±6.0	48.1±16.1	44.1±19.2	40.9±19.8
	<i>P</i> <sup>*</sup>	0.46	0.02	0.9	0.8	0.3
Work experience	<10 years	15.4±4.5	42.1±7.0	46.0±17	46±18.3	40.6±17.8
	>10 years	16.9±4.3	44.2±7.3	50.4±15.4	43.6±18.6	44.4±20.4
	<i>P</i> <sup>*</sup>	0.05	0.10	0.01	0.4	0.1
Working hours	<8 h	15.2±4.5	42.0±6.9	46.1±16.4	45.5±19.2	44.1±19.6
	>8 h	16.8±4.5	42.6±7.1	52.8±14.7	42.2±16.9	40.1±17.3
	<i>P</i> <sup>*</sup>	0.02	0.1	0.01	0.3	0.1
Sleep duration	<8 h	15.8±4.3	42.9±7.1	46.9±15.2	44.1±18.1	41.9±19
	>8 h	15.8±4.6	42.6±7.1	52.4±17.8	45.7±9.1	46.1±20
	<i>P</i> <sup>*</sup>	0.9	0.8	0.06	0.6	0.2

more efforts regarding sensitizing and motivating ASHAs may be helpful for improving their performance. Provision of transparent, responsive and reliable and fair monetary incentives and regularization of incentives can be effective in motivating ASHAs for participating efficiently in health-care delivery system.<sup>[36,37]</sup> Timely identification of this emotional diminution is needed to avoid the reification of the health care worker -patient relationship. Burnout needs to be addressed as a health care professional's

occupational disease at early. Stress reducing physical activity like established stress management exercise with mindfulness-based intervention, improving the competence by regular training and performance by regular evaluation, working on strengthen mental health added with reduced inter- colleague and inter-organizational changes are extremely necessary in reducing stress anxiety and burnout among health care workers.<sup>[38-40]</sup> Contribution of ASHA workers towards basic biomedical care has been increasing with

**Table 4: Correlation between Perceived Stress score and Anxiety with Personal, Work and Client burnout**

Stress score	Burnout	Correlation coefficient	P value
Perceived Stress score	Personal Burnout	0.369	0.001
	Work-related burnout	0.220	0.007
Anxiety	Client-related burnout	0.319	0.001
	Personal Burnout	0.198	0.015
	Work-related burnout	0.282	0.001
	Client-related burnout	0.319	0.001

time. Their contribution towards health education and providing primary health care at the village level has been indispensable. ASHA workers have become inevitable part of primary health care playing a pivotal role forming the much-needed link between village and health care. ASHA workforce has become a strategic opportunity to reduce pressure on the health system. Therefore measures must be taken at early to protect this workforce from mental health abnormalities because of community level challenges faced by them.<sup>[41,42]</sup>

The strengths of present study were it used validated questionnaire and used interview technique to collect data. Limitations of Study were that this study was based on a small sample of community health workers, which may limit the generalizability of the research findings. Being a cross-sectional survey, it may limit our ability to identify causal relationships between work stress, anxiety and workload.

## Conclusion

The present study showed stress, anxiety and work-related burnout was common among primary health care worker. Socioeconomic status, Training received before joining work, Type of work, perceptions regarding Work was found to be important factors affecting the mental health. Screening regularly for stress, anxiety and work-related burnout at work place is the need of the hour. Occupational mental health evaluation and Periodic assessment will be able to pick any deviations in mental health at early and address the same effectively.

## Declaration of patient consent

The authors certify that they have obtained all appropriate participant consent forms. In the form the participants has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The participants understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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## Conflicts of interest

There are no conflicts of interest.

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