STRESS, FAMILY RELATIONS AND WELL-BEING OF LOCAL TAXI DRIVERS IN AIZAWL

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CERTIFICATE

This is to certify that the present research work titled, "Stress,Family Relations and Well Being of Local Taxi Drivers in Aizawl" is the original research work carried out by Ms. Sarah Lalngaihawmi under my supervision. The work done is being submitted for the award of the degree of Master of Philosophy in Psychology of Mizoram University.

This is to further certify that the research conducted by Ms. Margaret Lalruatfeli Fanai has not been submitted in support of an application to this or any other University or any Institute of Learning.

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DECLARATION

I, Sarah Lalngaihawmi, hereby declare that the dissertation entitled, "Stress,Family Relations and Well Being of Local Taxi Drivers in Aizawl" is the record of work done by me, that the contents of this dissertation did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the dissertation has not been submitted by me for any research degree in any other University or Institute.

This is being submitted to the Mizoram University for the degree of Master of Philosophy in Psychology.

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Chapter – I
INTRODUCTION

Human life has a variety of aspects among which stress is an unavoidable phenomenon. A fast-paced world, where constant pressure is an associate of daily life, has created an environment where everyone suffers from excessive stress to some degree or other. According to Cooper and Payne (1988), "physical demands on the body such as disease, exercise, extreme temperature, professional hazards and also environmental and social situations which are evaluated as potentially harmful, uncontrollable, or exceeding our resources for coping", may cause stress to manifest as an internal state. Stress signs can be cognitive or emotional, as well as physical or behavioral. According to Sinha (2008), signs of stress may include poor decision-making or judgement, a generally negative outlook, excessive anxiety and moodiness, constant irritation and agitation as well as an inability to relax, feelings of loneliness, isolation and depression which are cognitive and emotional signs. Physical and behavioral signs may include aching and paining of body parts, neck pains, chest pains and rapid heartbeats, diarrhea or constipation as well as inability to eat or eating too much, dizziness, insomnia or excessive sleep, social withdrawal, procrastinating or neglecting one's responsibilities, increased intake of alcohol, nicotine or drugs, as well as nervous habits like pacing and biting one's nails.

One of the major factors affecting overall productivity of an organization is occupational stress. Insecurity of employment coupled with bad treatment, long working hours and unrealistic deadlines are some of the factors which cause serious problems for workers. Occupational stress

can play significant roles in bringing about health problems such as cardiovascular and gastrointestinal disorders as well as musculoskeletal disorders (Netterstrom et al 1998). Stress occurs in a wide range of work circumstances and when employees feel that they have little support from supervisors and colleagues and whether they can cope with its demands and pressures, it tends to worsen. Social support helps in protecting individuals who experience stress (Mohite, Prashant Dadaso ,2014).

Jobs which have high psychological demands coupled with little control in decision-making and combined with low social support are deemed stressful jobs (Sinha 2008). Driving is a particularly stressful job and has high demands on one's psychological well-being, with little decision-making control combined with a low social support (Bartone 1989). Drivers have little control over the multiple demands which they must respond to.Two of the main tasks of a driver-safe driving and maintaining timely schedules- are also inherently contradictory and according to Whitelegg (1995), one must compromise on the other in order to accomplish the other task. Job factors contributing to stress development in drivers are work shift schedules, irregular meal times and poor nutrition, traffic congestion, prolonged periods of driving, constant visual and mental alertness and driving during night hours in bad weather conditions. (MFL Occupational Health Centre, Inc.1998). Though social support helps protect individuals from experiencing stress, driving interrupts this social support in two ways. The solitary nature of the job gives little chance for face-to-face contact between co-workers, and the work schedule disrupts family as well as social life of the individual . (Talkikar CS.,2016).

Commercial Motor Vehicles or CMVs are any vehicles used to transport goods or passengers for the profit of an individual or business. Examples include pickup trucks, box trucks, semi-trucks, vans, coaches, buses, taxi-cabs, trailers and travel trailers. CMVs also

include exceptionally heavy vehicles and those that carry a large number of passengers. CMV drivers have a responsibility to think about how their health may affect their fitness to drive. This may apply to general health as well as alcohol and drug use. According to Kobasa (1979), drivers frequently report tension, mental overload, fatigue and sleeping problems. The work of CMV drivers has also been associated with a number of other conditions like mood and anxiety disorders (Bøggild H. &Knutsson A .1999). Driving motor vehicles is a complex task which requires perception, good judgment, responsiveness and reasonable physical capability. Professional driving of heavy vehicles, public passenger vehicles or dangerous goods vehicles brings with it the responsibilities to passengers and the demands of work schedules etc. Thus the ability of drivers to undertake their work safely may be impeded by medical conditions as well as their treatments.

Work hazards in the driving industry have been a major cause for concern especially among taxi drivers. As a result of the occupational environment such as irregular and erratic working hours and duration, work-shifts, poor posture and inadequate diet, drivers are exposed to a number of health problems. According to Whitelegge (1995), personality traits of drivers aggravates stress at work and complicates situations further, which in turn adversely affects the health of professional drivers. According to Durand and Kales (2008), mental health disorders have been found to cause impairments in attention/vigilance, executive function, memory and psychomotor coordination, which are of obvious importance to driving. Mental health has been identified as one of the prevailing factors of fatal accidents considered among drivers (Karjalainem, Blencowe and Lillsunde, 2011).

The job of operating public transit vehicles is amongst the most stressful and unhealthy of modern occupations. Literature over last four decades on bus drivers as stated by Evans et al

(1999) shows that as compared to workers in other jobs, bus drivers are more likely to experience cardiovascular diseases, gastrointestinal disorders and musculoskeletal disorders. In a study conducted in the U.S.A. by Shattell et al (2012), truck drivers were found to have significant issues affecting their mental health, such as loneliness (27.9%), depression (26.9%), chronic sleep disturbances (20.6%), anxiety (14.5%), and other emotional problems (13%). According to Dalziel et al (1997), the taxi industry is quite different from conventional occupations whereby the employee has ambiguous work hours and the income fluctuates on a daily basis. In recent times, according to Chu et al (2002), researchers have begun to take an integrative approach to improve workplace health and safety. Thus the importance of researching workplace health and safety in unconventional industry such as taxi driving may be pivotal in promoting health and safety behavior. Taxi driving in India though, is largely an unorganized sector and it is considered to be a means of establishing one-self into earning than quitting the occupation to join a more fruitful job.

Most research on driver stress has viewed stress as the outcome of a negative cognitive appraisal of driving situations (Glendon et al., 1993; Gulian, 1987; Hennessy & Wiesenthal, 1997) . Stress manifests itself negatively as anxiety and worry or, as physiological responses such as increased heart rate and blood pressure when driving is interpreted as demanding or dangerous (Robertson, 1988). Individuals experience a wide range of daily hassles, or minor daily pressures, that can accumulate and lead to the experience of stress (Flannery, 1986; Johnson & Stone, 1987). Higher incidents of speeding violations and minor traffic accidents have been found to be reported by individuals who describe driving as highly stressful (Matthews, Dorn, & Glendon, 1991) . Although there are no single factors which can necessarily be interpreted by all individuals as stressful, some factors leading to negative interpretations and

stress have been identified with traffic congestion being one of the most common contributors to driver stress (Gulian, Glendon, Matthews, Davies, &Debney, 1990; Selzer &Vinoker, 1974).

Most regular commuters experience some level of daily traffic congestion. It is often interpreted as a negative event as it tends to slow or block the attainment of goals, such as driving at a certain speed or getting to a destination at a scheduled time (Novaco, Stokols, Campbell, &Stokols, 1979). Individuals forced to drive below desired speeds especially for long distances tend to report a higher level of driver stress. Other undesirable driving scenarios include merging with fast moving traffic, failure to overtake other drivers, bad weather and poor conditions of roads such as those found in narrow construction lanes (Gulian, Debney, Glendon, Davies, & Matthews, 1989;Hennessy & Wiesenthal, 1999; Stokols, Novaco, Stokols, & Campbell, 1978). According to Gulian et al. (1989), factors unrelated to driving may also influence interpretations of driving situations such as problems in work or home environments. The use of the term "driver stress" rather than "driving stress" is advocated by them as whole life experiences of the driver influence stress rather than being confined exclusively to driving situations. A wide range of daily hassles or minor daily pressures experienced by individuals accumulate and lead to stress, and more often than not, new stressors must be dealt with first in order to resolve older issues (Cohen, 1980). Hassles which are not dealt with effectively influence individuals unconsciously and add to the pressures of subsequent hassles (Kohn & Macdonald, 1992b; Lazarus, 1981; Taylor, 1991). The after-effects of these hassles can add to psychological and physiological damage and as they accumulate with previous unresolved stress factors, may intensify over-time (Glass & Singer, 1972)..

Gulian et al. (1990) found that participants who reported a difficult day at work subsequently reported greater levels of fatigue and stress during their commute home.

Automobile driving has been identified as a common event that is frequently interpreted as stressful. According to Novaco et al (1990) when unresolved "non-driving" hassles carry forward into driving situations, negative interpretations of events may occur, which in turn increases the potential for driver stress. The findings of studies by Endler et al (1986, 1992, and 1935) also provided support for an interactional interpretation of driver stress, where elements of the person and elements of the situation are necessary to determine stress levels. As a further complication and danger, driver stress can also carry over from driving situations creating difficulties within the work or home environments which, in turn, influence further driver stress interpretations. As given by Glendon et al (1993) and Gulian et al (1990) acute driver stress has a cumulative effect which in turn produces a lasting propensity and personality disposition towards driver stress. Those who have repeated experiences of stress while driving may develop negative overviews of driving, heightening the probability of driver stress experiences. According to Lazarus (1966) some degree of psychological stress occurs as a result of undesirable or taxing events or stimuli on personal resources. In this respect, the stress response is not a stable entity, and particular response levels depend on individual interpretations of each experience, and are not automatically induced by external forces (Mason, 1975). There are a multitude of stimuli, within any driving encounter, which may be perceived as undesirable, like bad weather, time pressures and slow-moving vehicles (Gulian, Matthews, et al., 1989; Hennessy & Wiesenthal, 1997; Novaco et al., 1990).

In a study among drivers conducted by Chaudhari et al, the magnitude of stress between the age groups of 21 to 40 years (i.e. 27.8%) and of 41 to 60 years (i.e. 34.5%) is comparatively higher in the latter age group. In studies conducted by Taklikar C.S. (2016) among older bus drivers who have worked for more than 10 years, significantly high stress levels are detected. In

a study conducted in Lagos state by Uzonwanne C. Francis (2015) the psychological health of younger taxi drivers was also found to be significantly higher than that of older taxi drivers. A study was conducted on the Pune Mahaagar Parivahan Mahamandal Limited (PMPL) bus drivers and conductors by Prashant Dadso Mohite in 2014 to study the interrelationship between stress levels and productivity. Comparing the different age groups of drivers between 21-30 years, 31-40 years and 41-50 years, it was found that stress levels were highest in the age group between 41-50 years. This could be due to increasing age which may lead to a decrease in work efficacy, monotony in driving etc. Hence there is a need to create awareness regarding the promotion of health and a balanced diet, stress management and counseling, and regular medical checkups(Amit Kumar Singh,2015).

Lazarus and Folkman (1984) stated that perceived stress is a cognitive appraisal variable i.e. an understanding of events as mentioned in the stress paradigms, considered to act as mediators of the effect of stressors on psychological distress. Perceived stress signifies a subjective assessment of the degree to which the individual views events as taxing, or exceeding in coping with their resources (secondary appraisal). Bhagat and colleagues (1985) described that extreme job-related stress may be manifested in psychological functioning such as lack of involvement or disinterest, or physically through tardiness, absenteeism, or by leaving the job. Stress can affect general well-being as well as quality of life.

Occupational stress brings added stress to not only the individual, but also the household. As a further complication and danger, driver stress can also carry over from driving situations and create difficulties within the work and home environments as stated by Novaco et al (1990). In a study conducted by Mpho Manoagae Mmadi in 2012, results indicated that taxi drivers work under harsh working conditions with very few employment related benefits and little time for

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their families. Kahn et al. (1964: 19), cited in Jeffery and Beutell (1985:77), define family-work conflict as the: "Simultaneous occurrence of two (or more) sets of pressure such that compliance with one would make more difficult compliance with the other". Jeffrey and Beutell (1985: 77) identify three major forms of work-family conflict, namely: (a) time-based conflict, (b) strain-based conflict and, (c) behaviour-based conflict.

An examination of different literature suggests that taxi drivers work between15-17 and 18-20 hours per day for seven days a week in both South Africa and the United States respectively. These long hours mean that taxi drivers have almost no time for anything else except work (Blasi & Leavitt, 2010:5, 21; Forrest, 1997: 24; Jugerson, 1998 cited in Majeke, 2003: 26; SAPA, 1997: 12 cited in Mahlangu, 2002: 34). According to Hyman et al (2005: 135), it is those workers with dependents who are more likely to experience time-based conflict. In the findings of research carried out in Los Angeles (in the United States), Blasi and Leavitt (2010: 21) argue that "The negative consequence of such long working hours extend to the drivers themselves, their families, and the general public". The work of taxi drivers makes it difficult, if not impossible, for them to perform any outside roles apart from work. This difficulty arises because on off days, taxi drivers spend most of their free time sleeping or are just too tired to do any other activities. Long working hours bring about exhaustion, stress and illness which intrude into workers' private lives (Hyman et al., 2003 cited in Hyman et al., 2005: 123). Furthermore, both Blasi and Leavitt (2010: 24) and Hyman et al (2005: 136) highlight that the mismatch of schedules affect eating together as a family. Dinner table conversations are an important part of family relations and critical to cohesion. Long working hours mean that taxi drivers do not get to spend time with certain members of the family, particularly the elderly, young children and friends. Working under these conditions can lead to strain as well as symptoms such as tension,

anxiety, irritability and fatigue, which are all broadly categorised under mental and emotional wellbeing. Such work strain clearly has a negative impact on workers, their family and their community life (Pocock, Skinner & Williams, 2008: 22; Brief, Schueler& Van Sall, 1981 cited in Jeffrey &Beutell, 1985: 80; Ivancevich & Matteson, 1980 cited in Jeffrey &Beutell, 1985: 80).

Wellbeing is not as straightforward as just being happy and looks at the different elements that make us complex humans tick. A strong sense of wellbeing contributes to good mental health and helps to protect an individual from feelings of hopelessness and depression, acting as a 'guardian' to their mental health. Mental health is not merely the absence of mental illness rather it is a state of overall wellbeing. The World Health Organisation defines mental health as 'a state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to her or his community.' Wellbeing is about making a life where an individual is able to contribute to a greater society and, where one can have a more fulfilling existence with meaningful and supportive relationships. Wellbeing gives an individual a way to discover and explore one's strengths and helps in living life to one's full potential.

General well-being, as given by Verma et al (1989) refers to the subjective feelings of contentment, happiness and satisfaction with life experiences and of one's role in the world of work, one's sense of achievement, utility, and belongingness, with no distress, dissatisfaction and worry. Mental health experts advocate wellbeing as a way of improving one's life. Wellbeing helps an individual to stay resilient, build social support and self-efficacy, and cope with adversity. In positive psychology, wellbeing is a heightened state that is beyond just feelings of happiness or having good health. It is a condition of flourishing where one thrives in many aspects of one's life. As stated by Everly (1986), repeated exposure to stress, without

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effective coping, has been linked to a variety of physiological and psychological pathologies including increased heart rate, blood pressure, anxiety, and negative effect (Henry & Stephens, 1977; Spence, 1988; Stokols et al., 1978). Performance, mood, and health in work and home environments having been found to be influenced by driver stress heightens the importance of developing techniques to deal with personal and situational antecedents to driver stress(Novaco et al., 1990; Schaeffer, Street, Singer, & Baum, 1988). Taking the examples set by Gulian et al (1989, 1999, 1996) and Mizell and Wiesenthal et al (1996, 2000), the concentration of techniques for stress reduction should be on minimizing driver stress susceptibility traits as it is linked with elevated stress in both low and high congestions of traffic. Repeated negative experiences contribute to trait susceptibility and the reduction of this disposition may be possible through frequent positive driving experiences, such as weekend travel at a leisurely pace. In extreme cases, introduction of individual or group counseling sessions can help individuals deal with problems regarding life and help provide techniques for reducing stress that can be performed by the individuals themselves. These techniques like- time management, trip planning, listening to music, muscle relaxation, meditation and adaptive training- can be performed prior to, during, and immediately after driving excursions (Gulian, Debney, et al., 1989; James, 1999; Kohn, 1996; Mizell, 1996; Wiesenthal et al., 2000). The job of operating public transit vehicles is amongst the most stressful and unhealthy of modern occupations. Literature over last four decades on bus drivers shows that as compared to workers in other jobs, bus drivers are more likely to experience cardiovascular diseases, gastrointestinal disorders and musculoskeletal disorders (Evans et al,1999).

Chapter – II
STATEMENT OF THE PROBLEM

Stressful jobs are those jobs which have high psychological demands and little decision-making control, in combination with low social support on the job. Driving is a classic example of a stressful job, where drivers must respond to multiple demands over which they have little control. Co-morbidities such as mood and anxiety disorders have been associated with the work of commercial motor vehicle drivers (Boggild H. & Knutsson A. 1999). The main tasks of a driver including not only driving in a safe manner, but also keeping on schedule, and treating passengers in a professional and courteous manner. Inherently two of these tasks are contradictory i.e. maintaining the schedule and serving the public. In order to accomplish one, the driver may have to compromise on the other which results in drivers frequently reporting problems related to tension, mental overload, fatigue, and sleeping problems as stated by Kobasa (1979).

Most driver stress research have viewed stress as the outcome of a negative cognitive appraisal of driving situations (Glendon et al., 1993; Gulian, 1987; Hennessy & Wiesenthal, 1997). Stress manifests itself into negative effects such as anxiety and worry (Gulian, Matthews, Glendon, Davies, &Debney, 1989), or psychological responses in the form of increased heart rates and blood pressure, (Robertson, 1988) when interpretations of driving are seen as demanding or dangerous. Higher incidents of speeding violations and minor traffic accidents have been reported to occur among individuals who describe driving as highly stressful.

(Matthews, Dorn, & Glendon, 1991 ; Gulian, Glendon, Matthews, Davies, &Debney, 1990; Selzer &Vinoker, 1974)**.**

According to Kobasa (1979), drivers frequently report tension, mental overload, fatigue and sleeping problems. The work of CMV drivers has also been associated with a number of other conditions like mood and anxiety disorders (Bøggild H. &Knutsson A .1999) and physiological and psychological pathologies (Everly, 1986), including increased heart rate, blood pressure, anxiety, and negative affect (Henry & Stephens, 1977; Spence, 1988; Stokols et al., 1978). Studies have reported that the magnitude of stress was higher in age group 41 to 60 years when compared to 21 to 40 years age group. Driving motor vehicles is a complex task which requires perception, good judgment, responsiveness and reasonable physical capability. Professional driving of heavy vehicles, public passenger vehicles or dangerous goods vehicles brings with it the responsibilities to passengers and the demands of work schedules etc. Thus the ability of drivers to undertake their work safely may be impeded by medical conditions as well as their treatments.

According to Durand and Kales (2008), impairments in attention/vigilance, executive function, memory and psychomotor coordination, which are of obvious importance to driving, have been found to be caused by mental health disorders. Tension, mental overload, fatigue and problems sleeping as well as a number of other co-morbidities such as mood and anxiety disorders have been frequently reported by drivers along with physiological and psychological pathologies like increased heart rates, high blood pressure, anxiety and other negative effects.

In a study among drivers conducted by Chaudhari et al, the magnitude of stress between the age groups of 21 to 40 years (i.e. 27.8%) and of 41 to 60 years (i.e. 34.5%) is comparatively

higher in the latter age group. In studies conducted by Taklikar C.S. (2016) among older bus drivers who have worked for more than 10 years, significantly high stress levels are detected. In a study conducted in Lagos state by Uzonwanne C. Francis (2015) the psychological health of younger taxi drivers was also found to be significantly higher than that of older taxi drivers. A study was conducted on the Pune Mahaagar Parivahan Mahamandal Limited (PMPL) bus drivers and conductors by Prashant Dadso Mohite in 2014 to study the interrelationship between stress levels and productivity. Comparing the different age groups of drivers between 21-30 years, 31-40 years and 41-50 years, it was found that stress levels were highest in the age group between 41-50 years.

Performance, mood, and health in work and home environments having been found to be influenced by driver stress heightens the importance of developing techniques to deal with personal and situational antecedents to driver stress (Novaco et al., 1990; Schaeffer, Street, Singer, & Baum, 1988). Among taxi drivers in the driving industry especially, work hazards have become a major cause for concern. The taxi industry and taxi drivers are an indelible factor for human and general road safety as they play a major role in commercial functioning. The industry, with its ambiguous work hours and daily income fluctuations, is different from conventional occupations.

In recent years, an integrative approach has been taken by researchers to improve health and safety at the workplace. As such, in order to promote health and safety behavior in an unconventional industry such as the taxi industry, the importance of researching workplace health and safety is pivotal.

The operational definitions which will be used in the present study are as follows:

- Commercial motor vehicle : A vehicle for carrying goods or passengers.

- Taxi : A motor vehicle licensed to transport passengers in return for payment of a fare and typically fitted with a taximeter.

- Local Taxi Driver : A taxi driver is a person whose job is to take people in a car to the place they want to go to in return for money.

- Early Adulthood : A person in the early adulthood stage ages from 20 through early 40 years.

- Middle Adulthood : When people reach their 40s, they enter the time known as middle adulthood, which extends to the mid-60s.

The present study is the first in Mizoram, as far as the researcher is aware and theoretical and empirical data on the psychological health of taxi drivers is yet to be adequately represented in Mizo Taxi drivers. The research study is proposed with the expectation that the results will provide a comprehensive understanding of the stress that local taxi drivers are facing, and to assess/evaluate the relationship between age, stress, family relations and well-being.

Objectives of the study:

1. To determine the effect of age (younger and older) on the measures of stress, family relations and well-being.

2. To elucidate the relationship between stress and family relations among two age groups.

3. To elucidate the relationship between stress and well-being among two age groups.

4. To examine the role of stress and age on family relations and well-being.

Hypotheses :

1. It is expected that older taxi drivers (40-50 yrs) will report a significantly higher stress level than younger taxi drivers (20-30yrs)

2. It is expected that family relations will be better in younger taxi drivers than older taxi drivers.

3. It is expected that wellbeing will be better in younger taxi drivers than older taxi drivers.

4. It is expected that there will be a significant negative relationship between stress and family relations in both age groups.

5. It is expected that stress and age will have significant relationship on well-being and family relations.

Chapter – III
METHODOLOGY

Samples: Purposive random sampling shall be used for the present study. A total of 200, (100 younger taxi drivers ,20-30 years; 100 older taxi drivers,40-50 years) local taxi drivers from Aizawl city will be selected to serve as subjects for the study. The study will be carried out in Aizawl city and the sample for the study will be selected from the records of the Mizoram Taxi Owners Association, Zoram Taxi Drivers Association (ZTDA) and Mizoram Drivers Union.

Inclusion Criteria:

1.   The age group of the subjects should be between 20-50 years.

2.   Subjects should be married males.

3.   Subjects should have at least one year of working experience as a taxi driver.

Design of the Study: The present study shall incorporate separate group design for the conduct of the study.
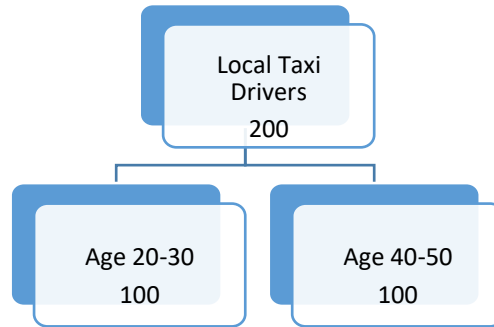
Figure 1 :- The sample characteristic table of the proposed study.

Psychological Tools:

1.   Perceived Stress Scale (PSS: Cohen & Williamson,1988):

Consists of 10-item scale. It was rated along 5-points Likert Scale ranging from 0 to 4,reliability was .68,and high scores show high stress. PSS is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situation in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct community samples with at least a junior high school education. The items are easy to understand, and the responses alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. PSS scores are obtained by reversing responses (eg: 0=4, 1=3, 2=2,3=1 and

4=0) to the four positively stated items (items 4,5,7,8) and then summing across all scale items.

2.   <u>Family Environment Scale(FES : Moos and Moos, 1974,1994,2002);</u>

The Family Environment Scale has three forms: R (Real - people's perceptions of their current family functioning), I (Ideal - people's perceptions of the family they would ideally like) and E (Expectations - what people expect a family climate to be like). It is intended to measure ten subscales on three dimensions: Relationships (Cohesion, Expressiveness, Conflict), Personal Growth (Independence, Achievement Orientation, Intellectual-Cultural Orientation, Active-Recreational Orientation, Moral-Religious Emphasis), and System Maintenance (Organization, Control). Each informant is given a booklet with 90 statements describing different aspects/habits of his/her family. He/ she is asked to mark with 'X' whether each statement is True or False on a separate answer sheet, and the total score is estimated for each sub-scale (with a high score positive, and a maximum score of 9, for each sub-scale). The FES sub-scales have been found to have good internal consistency and test-retest reliability Uacon and Tennenbaum, 1988; Moos, 1990). The FES sub-scales (e.g. Cohesion and Conflict) have been found to describe similar concepts to those measured by other family assessment instruments (Holahan and Moos, 1983; Bloom, 1985), which supported their construct validity (Moos and Moos, 1986). Moos (1990) asked nine independent raters to assign 45 FES items to one of five sub-scales. The finding that at least six of the raters (67%) categorized correctly 39 of the 45 items provided evidence,

according to the authors, for the good content and face validity of the FES items and sub-scales.

3. <u>General Health Questionnaire-12 (GHQ-12;Goldberg,D.,1992):</u>

The General Health Questionnaire 12 (GHQ-12) is a 12-item self-report measure of psychological well-being. The scale asks whether the respondent has experienced a particular symptom or behavior recently. Each item is rated on a four-point Likert-type Scale with scores of 0-1-2-3 for response choices of less than usual respectively; the scores may range from 0 to 36 with lower scores indicating psychological well-being and vice versa for high scores. General Health Questionnaire (GHQ; David Goldberg,1998) contained 12 items, rated on 5 points Likert Scale, split-half reliability was found to be .95. Cronbach's Alpha on GHQ range from .82 to .90, high scores represent a higher level of wellbeing. It is screening device for identifying the minor psychiatric disorder, it has 12 questionnaires. GHQ 12 had been recommended as a reliable screening instrument for psychological distress in all clinical groups, and high scores show high psychological well-being.

Procedure: The primary data for the study was collected in a face to face interaction between the participants and the researcher in an optimum environmental setting after formation of a good rapport. The researcher took care to see that the respondents provided honest and independent answers to the questions presented. The anonymity, confidentiality and ethics as cited/ formulated by APA,2003 (American Psychiatric Association) was followed.

Statistical Analyses:

1. Psychometric properties of each of the scale and subscales of the psychological measures shall be attempted to be ascertained.

2. Descriptive statistics (mean, SD, skewness, kurtosis, etc.) shall be employed to provide an outline of the general characteristics of the variables under study.

3. Diagnostic assumptions that underlie the application of parametric tests shall be checked, if needed transformation of scores shall be done for the scale/subscales of the psychological measure.

4. Appropriate statistical analysis shall be used to test the hypothesis.

Chapter IV
RESULTS AND DISCUSSION

Firstly, the descriptive statistics were computed including the mean, standard deviation, skewness, kurtosis, reliability, linearity of the scales in checking the normal distribution of scores for checking data structure to decide appropriate statistics on selected psychological measures such as : i)Perceived Stress Scale (Stress) ii) Family Environment Scale (Family Relations) iii) General Health Questionnaire (Well being).

Secondly, Mann Whitney U Test was employed to illustrate the age,total,mean rank and sum of ranks of the variables for the whole samples.

Thirdly, Post hoc-test was employed to study the direction and significance of differences between the three groups.

Fourthly, Pearson's Bivariate Correlation on scales of the behavioral measures for the whole samples were calculated to indicate significant relationship of variables for further analysis in predicting cause and effect among variables. Correlation analysis was also calculated to elucidate the relationship between work duration and stress, family relations and well being.

Finally, Linear Regression was employed to analyze prediction of stress,family relations and well being by work duration and alcohol consumption.

Psychometric properties of the behavioral measures:

The parametric statistical analyses of Descriptive Statistics, Cronbach Alpha, normality, linearity, and homogeneity were checked with an objective to justify the appropriate statistical treatment for further analyses of the raw data; to work out any requirement of appropriate transformation of the raw data; missing responses, outliers and those responses outside the sampling frame as well as deviated responses from the distributed data which were excluded for statistical analyses were performed for simple and clear presentation of the results,and the descriptive statistics of the scales of the behavioral measures are presented in Table 1. The results in Table 1 highlighted the Mean,Standard Deviation,Standard Error,Skewness and Kurtosis of the scales of i) Perceived Stress Scale (PSS) ii)Family Environment Scale (FES) iii)General Health Questionnaire-12 (GHQ-12) for the whole sample. In younger taxi drivers, the mean score for PSS was found to be 9.4, for FES the mean score was found to be 10.35 and for GHQ-12 the mean score was found to be 123.62. In older taxi drivers, the mean score for PSS was found to be 14.71, for FES the mean score was found to be 5.19 and for GHQ-12 the mean score was found to be 123.65. The analysis of the skewness and kurtosis of the variables showed that the variables were highly skewed and kurtotic indicating non-normal distribution of scores. Therefore, Non-parametric statistic of Mann Whitney U test was resorted for proper interpretation of the scores.

The reliability of the scales were ascertained by the Cronbach's Alpha for each of the scales to ensure psychometric adequacy of the scales. For the PSS,the reliability was found to be .71, for the FES, reliability was found to be .95 and for GHQ-12, reliability was found to be .60. The results revealed that total coefficient of correlation and reliability coefficient of the scales ensured to be satisfactory over the levels of analysis for the whole sample.

Table 1

Reliability co-efficient of the scales : Perceived Stress Scale, Family Environment Scale and General Health Questionnaire.

SCALES	CRONBACH'S ALPHA
PSS	.71
FES	.95
GHQ	.60

Table 2

The Mean, SD, Skewness and Kurtosis for the measured variables of the scales of Perceived Stress Scale, Family Environment Scale and General Health Questionnaire-12 among younger and older taxi drivers in Aizawl

	Younger Taxi Drivers (20-30yrs)				Older Taxi Drivers (40-50yrs)			
	Mean	SD	Skewness/ Std.Error	Kurtosis/ Std.Error	Mean	SD	Skewness/ Std.Error	Kurtosis/ Std.Error
PSS	9.34	2.13	-.196/.239	.820/.474	14.71	3.14	.368/.239	-.253/.474

FES	10.35	3.48	.379/.239	-.538/.474	5.19	5.19	.314/.239	-.522/.474
GHQ-12	123.62	17.59	.526/.239	-1.226/.474	123.65	17.62	.523/.239	-1.236/.474

Note. PSS= Perceived Stress Scale. FES=Family Environment Scale. GHQ-12= General Health Questionnaire-12. SD= Standard Deviation.

Correlation between Stress, Family Relations,Well Being and Age.

Correlation analysis was conducted in order to find out the relationship between stress,family relations, well being and age,the results of which are shown in Table 3.

Well being has significant negative correlation with stress (-.52, p<.01) and age (-.67, p< .01).

Stress was also found to have significant positive correlation with age (.75, p< .01). However, there was no significant relationship between the other measures.

Table 3

Pearson Correlation for the measured variables of Perceived Stress Scale, Family Environment Scale, General Health Questionnaire-12 and Age.

SCALES	FES	GHQ-12	PSS	AGE
FES	1	.03	.05	.002
GHQ-12		1	-.52**	-.67**
PSS			1	.75**
AGE				1

Note. *p< .05. **p<.01

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<u>Comparing differences between younger and older taxi drivers</u>

Mann Whitney U Test was employed to find out if significant differences exist between younger and older taxi drivers on the measures of stress, family relations and well being, shown in Table 4. The PSS results indicated significantly higher levels of stress in older taxi drivers (Mean = 146.53 ; Mean Rank = 14946.50) scoring higher on stressful situations than younger taxi drivers (Mean = 58.47 ; Mean Rank = 5963.50) in the target population. In GHQ, results indicated significantly lower levels of well being in older taxi drivers (Mean = 63.08; Mean Rank = 6434.50) than younger taxi drivers (Mean = 141.92; Mean Rank = 14475.50) in the target population.The FES results indicated that there is no significant difference between younger(Mean = 102.36; Mean Rank = 10440.50) and older taxi drivers(Mean = 102.64; Mean Rank = 10469.50) in their family relations.

Table 4

Age,Total,Mean Rank and Sum of Ranks on Mann Whitney U Test for Stress,Family Relations and Well being among younger and older taxi drivers in Aizawl.

SCALES	AGE	N	MEAN RANK	SUM OF RANKS	Sig.	Eta Squared
PSS	20-30	100	58.47	5963.50	.000	.57
	40-50	100	146.53	14946.50		
	TOTAL	200				
FES	20-30	100	102.36	10440.50	.973	.01
	40-50	100	102.64	10469.50		
	TOTAL	200				
GHQ-12	20-30	100	141.92	14475.50	.000	.45

40-50	100	63.08	6434.50	
TOTAL	200			

Note. PSS= Perceived Stress Scale. FES=Family Environment Scale. GHQ-12= General Health Questionnaire-12.

Table 5

Post-Hoc test on Perceived Stress Scale and General Health Questionnaire-12

Scales	Age	Mean Rank	Significance	Group Median
PSS	Age 1	58.47		9.83
	Age 2	146.53		18.53
	Difference	-88.06	.00	
GHQ-12	Age 1	141.92		10.05
	Age 2	63.05		5.15
	Difference	78.87	.00	

Note. Age 1 = Younger taxi drivers (20-30 years), Age 2 = Older taxi drivers (40-50 years)

Post-hoc analysis was further employed to study the direction and significance of differences between the two groups i.e., Younger taxi drivers and older taxi drivers as shown in Table 5. Results have shown that significant difference was found between younger and older taxi drivers on stress and well being ($p<.01$). Similar trends have been reported by Chaudhary and colleagues (2010) where there is significant differences in magnitude of stress in which stress was found to be higher in older taxi drivers when compared to younger taxi drivers in their research. This result also finds support from research done by CS.Talkikar (2016) in which stress was found to be significantly high

among bus drivers who are older and having job duration more than 10 years. This result is also consistent with research done by Uzonwanne C.Francis (2015) in Lagos state, where the psychological health of younger taxi drivers is higher than that of the older taxi drivers.

Linear Regression was employed to analyze the prediction of stress,family relations and well being by work duration and alcohol consumption. In PSS,results indicated that work duration significantly predicts stress at .01 level and predicted 59% of stress level in taxi drivers. In GHQ-12,results indicated that work duration significantly predicts well being at .01 level and predicted 36% of taxi drivers' well being. Also,in GHQ-12,alcohol consumption significantly predicts well being at .05 level and predicted 2.2% of well being in taxi drivers.

Table 6

Linear Regression for the prediction of work duration and alcohol consumption on stress,family relations and well being

Variables	Scales	R	R^2	Sum of squares	df	F	Sig
Work Duration	PSS	.762	.59	3982.93	1	279.64	.000
Alcohol Consumption		.012	.000	1.016	1	.030	.863
Work Duration	FES	.000	.000	.009	1	.000	.996
Alcohol Consumption		.030	.001	56.89	1	184	.669
Work Duration	GHQ-12	.594	.36	1124.38	1	110.24	.000
Alcohol Consumption		.148	.02	69.89	1	4.533	.034

Dependent Variables : PSS, FES & GHQ-12. Predictors : Work duration & Alcohol consumption.

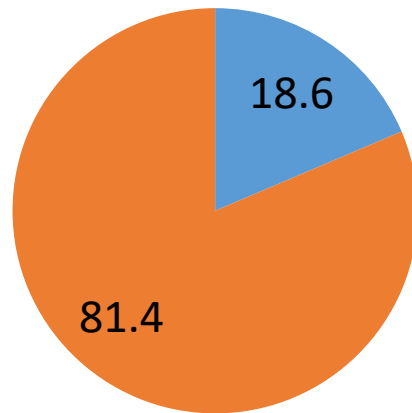**RESPONSES OF PARTICIPANTS IN FAMILY ENVIRONMENT SCALE**

- Active Recreational Orientation in Family Environment Scale.

Figure 1. We spend most weekends and evenings at home.
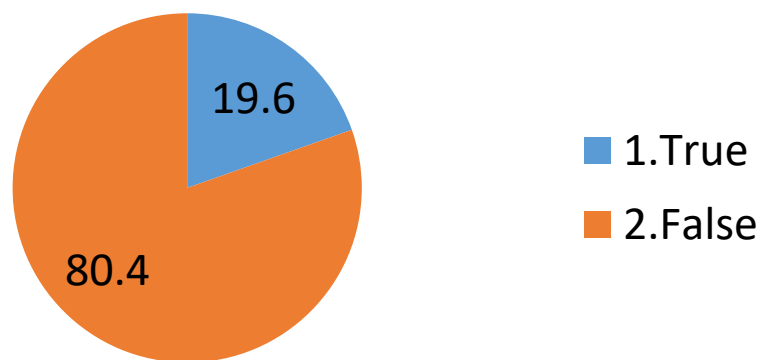
- Cohesion

Figure 2. We often seem to be killing time at home.

- Intellectual-Cultural Orientation
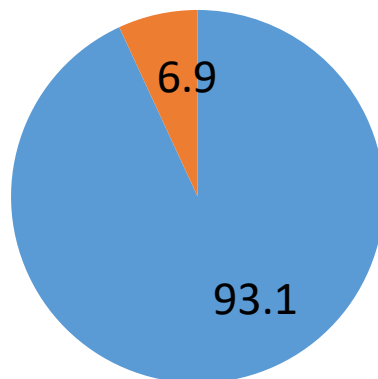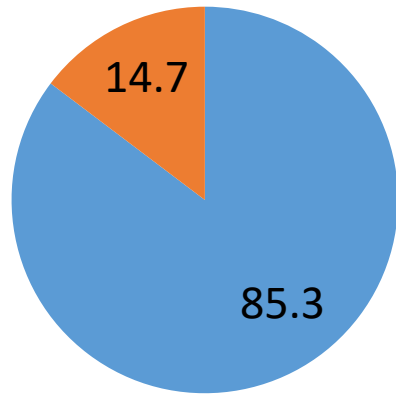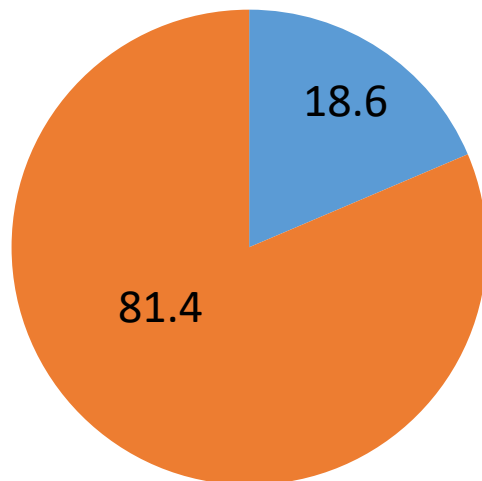

Figure 3.We rarely go to lectures,plays or concerts.

Figure 4.We rarely have intellectual discussions.

14.7

85.3

- Conflict

Figure 5. Family members hardly ever lose their temper.

18.6

81.4

Chapter- V
SUMMARY AND CONCLUSION

Human life has a variety of aspects among which Stress is an unavoidable phenomenon. A fast-paced world, where constant pressure is an associate of daily life, has created an environment where everyone suffers from excessive stress to some degree or other. Jobs which have high psychological demands coupled with little control in decision-making and combined with low social support are deemed stressful jobs). Driving is a particularly stressful job and has high demands on one's psychological well-being, with little decision-making control combined with a low social support, according to Bartone (1989). Drivers have little control over the multiple demands which they must respond to. The main tasks of a driver include driving safely, keeping on schedule, and treating passengers in a manner that is both courteous and professional. Two of these tasks- maintaining a schedule and public service- are inherently contradictory. In order to accomplish one task, the driver may have to compromise on the other. Two of the main tasks of a driver- safe driving and maintaining timely schedules- are also inherently contradictory and according to Whitelegg (1995), one must compromise on the other in order to accomplish the other task.

Job factors contributing to stress development in drivers, according the MFL Occupational Health Centre (1998), are work shift schedules, irregular meal times and poor nutrition, traffic congestion, prolonged periods of driving, constant visual and mental alertness

and driving during night hours in bad weather conditions. Though social support helps protect individuals from experiencing stress, according to Talkikar CS (2016), driving interrupts this social support in two ways. The solitary nature of the job gives little chance for face-to-face contact between co-workers, and the work schedule disrupts family as well as social life of the individual.

Following random sampling procedure, 204 taxi drivers- 102 younger taxi drivers and 102 older taxi drivers were selected for the present study. The study employed experimental design comprising of two groups – Younger taxi drivers (Age 20-30) and older taxi drivers (Age 40-50). The present study is the first in Mizoram, as far as the researcher is aware and theoretical and empirical data on the psychological health of taxi drivers is yet to be adequately represented in Mizo Taxi drivers.

The quantitative primary data collected was processed with the help of a computer and analyzed with statistical packages. Statistical Package for the Social Sciences (SPSS) were employed in conjunction with Microsoft Office Excel (2013). The psychometric adequacy of all the behavioral measures is ascertained. The data are then presented with Descriptive statistics (Mean, SD, Skewness and Kurtosis). The inferential statistics principally include Mann Whitney U Test and Linear Regression with careful check of their assumptions. Results were as follows :

The parametric statistical analyses of Descriptive Statistics, Cronbach Alpha ,normality,linearity and homogeneity were checked with an objective to justify the appropriate statistical treatment for further analyses of the raw data; missing responses, outliers and those responses outside the sampling frame as well as deviated responses from the distributed data

which were excluded for statistical analyses were performed for simple and clear presentation of the results.

Hypothesis 1

It was expected that older taxi drivers (40-50 yrs) will report a significantly higher stress level than younger taxi drivers (20-30yrs).

The results showed that there are significant differences between older and younger taxi drivers on their levels of stress,where older taxi drivers showed higher scores than younger taxi drivers in the psychological measure i.e. stress.

Hypothesis 2

It was expected that family relations will be better in younger taxi drivers than older taxi drivers. The results showed no significant difference between older and younger taxi drivers on the psychological measure i.e. family relations.Hence,hypothesis 2 was rejected.

Hypothesis 3

It was expected that wellbeing will be better in younger taxi drivers than older taxi drivers.

The results showed that there are significant differences between older and younger taxi drivers on their levels of well being ,where older taxi drivers showed lower scores than younger taxi drivers in the psychological measure i.e well being.

Hypothesis 4

It was expected that there will be a significant negative relationship between stress and family relations in both age groups. There was no significant relationship between stress and family relations. Hence,hypothesis 4 was rejected.

Hypothesis 5

It was expected that stress and age will have significant relationship on well-being and family relations. The results showed that stress and age have a significant negative relationship on well being.However,no significant relationship was found on family relations.

The aim of the present study was to determine the effect of age (younger and older) on the measures of stress, family relations and well-being,to elucidate the relationship between stress and family relations among two age groups,to elucidate the relationship between stress and well-being among two age groups and to examine the role of stress and age on family relations and well-being.The findings of the present study indicated that there are significant differences between older and younger taxi drivers on their levels of stress,where older taxi drivers showed higher scores than younger taxi drivers in the psychological measure i.e. stress. This result is consistent with research done by Chaudhary and colleagues (2010) where the magnitude of stress was higher in older taxi drivers when compared to younger taxi drivers.This result also finds support from research done by CS.Talkikar (2016) in which stress was found to be significantly high among bus drivers who are older and having job duration more than 10 years.In another research by Prashant Mohite Dadso (2014),stress among drivers in 21-30 years, 31-40 years and 41-50 years were compared and it was found that stress level among 41-50 years were highest.

Significant difference was also found between older and younger taxi drivers on well being. Older taxi drivers showed lower score than younger taxi drivers on the psychological measure i.e. well being.This result is consistent with research done by Uzonwanne C.Francis (2015) in Lagos state, where the psychological health of younger taxi drivers is higher than that of the older taxi drivers.However, there was no significant difference between older and younger taxi drivers on the psychological measure i.e. family relations.The findings of the study also indicated that well being has significant negative relationship with stress and age. This means that decrease in well being increases the level of stress,and that as age increases,well being decreases. Significant positive relationship was also found between stress and age,which indicates that as age increases,the level of stress increases.

The findings of the study also indicated that stress has significant positive relationship with work duration. This means that as work duration increases,levels of stress increases.This result is consistent with research done by CS.Talkikar (2016),where stress is significantly high among bus drivers who had worked for more than 10 years.Well being was found to have significant negative relationship with work duration.So,as work duration increases, well being decreases.

Summarizing from the above findings,we can say that significant differences on levels of stress and well being were found between younger and older adult taxi drivers. The results depicted significantly higher levels of stress in older than younger taxi drivers and significantly lower levels of well being in older than younger taxi drivers. Hence there is need for creating awareness regarding health promotion, balanced diet, stress management, counseling and regular medical checkup(Amit Kumar Singh,2015). The fact that driver stress has been found to influence performance, mood, and health in work and home environments (Novaco et

al., 1990; Schaeffer, Street, Singer, & Baum, 1988) heightens the importance of developing techniques for dealing with personal and situational antecedents to state driver stress.Taxi industry is quite different from conventional occupations; the employee has ambiguous work hours and the income fluctuates on a daily basis (Dalziel et al,1997)Researchers have begun to take an integrative approach to improve workplace health and safety,thus the importance of researching workplace health and safety in unconventional industry such as taxi driving may be pivotal in promoting health and safety behavior. (Chu et al,2002).Mental Health has been identified as one of the factors considered in the prevalence of fatal accidents among drivers (Karjalainen, Blencowe&Lillsunde, 2011). So this research study is an attempt to provide a comprehensive understanding of the stress that local taxi drivers are facing, and to assess/evaluate the relationship between age, stress, family relations and well-being to propose/develop intervention strategies for overall psychological well being of taxi drivers and to prevent fatal accidents among drivers in Mizoram.

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APPENDICES

APPENDIX- I

DEMOGRAPHIC PROFILE

Name: _____

Age: _____

Address:_____

Marital Status : _____

Number of Children : _____

Driver Work Profile

Work Duration : _____

Working Hours:-

- On Weekdays :_____

- On Weekends :_____

Do you have a drinking problem: Yes / No

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

Name_____ Date _____

Age _____ Gender (Circle): M   F   Other _____

0 = Never   1 = Almost Never   2 = Sometimes   3 = Fairly Often   4 = Very Often

1. In the last month, how often have you been upset
    because of something that happened unexpectedly?................................... 0   1   2   3   4

2. In the last month, how often have you felt that you
    were unable to control the important things in your life?...........................0   1   2   3   4

3. In the last month, how often have you felt nervous and stressed?...............0   1   2   3   4

4. In the last month, how often have you felt confident about your ability
     to handle your personal problems?..0   1   2   3   4

5. In the last month, how often have you felt that things
    were going your way? ………………………………………………….0   1   2   3   4

6. In the last month, how often have you found that you could not cope
    with all the things you had to do?..0   1   2   3   4

7. In the last month, how often have you been able
    to control irritations in your life? ……………………………………....0   1   2   3   4

8. In the last month, how often have you felt that you were on top
    of things? …………………………………………………………..0   1   2   3   4

9. In the last month, how often have you been angered
    Because of things that were outside of your control? ……………………..0   1   2   3   4

10. In the last month, how often have you felt difficulties
    were piling up so high that you could not overcome them? ………………0   1   2   3   4

APPENDIX - III

FAMILY ENVIRONMENT SCALE

Form R Item

Booklet

By Rudolf H.Moos, Ph.D.

Instructions

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheet. If you think the statement is True or mostly True of your family, make anX in the box labeled T (true). If you think the statement is False or mostly False of your family,make an X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is true for most members. Mark F if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.

Work Across →

1. Family members really help and support one another.

2. Family members often keep their feelings to themselves.

3. We fight a lot in our family.

4. We don't do things on our own very often in our family.

5. We feel it is important to be the best at whatever you do.

6. We often talk about political and social problems.

7. We spend most weekends and evenings at home.

8. Family members attend church, synagogue or Sunday School fairly often.

9. Activities in our family are pretty carefully planned.

10. Family members are rarely ordered around.

11. We often seem to be killing time at home.

12. We say anything we want to around home.

13. Family members rarely become openly angry.

14. In our family, we are strongly encouraged to be independent.

15. Getting ahead in life is very important in our family.

16. We rarely go to lectures,plays or concerts.

17. Friends often come over for dinner or to visit.

18. We don't say prayers in our family.

19. We are generally very neat and orderly.

20. There are very few rules to follow in our family.

21. We put a lot of energy into what we do at home.

22. It's hard to "blow off steam" at home without upsetting somebody.

23. Family members sometimes get so angry they throw things.

24. We think things out for ourselves in our family.
25. How much money a person makes is not important to us.

26. Learning about new and different things is very important in our family.

27. Nobody in our family is active in sports,little league, bowling, etc.

28. We often talk about the religious meaning of Christmas,Passover,or other holidays.

29. It's often hard to find things when you need them in our household.

30. There is one family member who makes most of the decisions.

31. There is a feeling of togetherness in our family.

32. We tell each other about our personal problems.

33. Family member hardly ever lose their tempers.

34. We come and go as we want to in our family.

35. We believe in competition and "may the best man win"

36. We are not that interested in cultural activities.

37. We often go to the movies, sports events, camping, etc.

38. We don't believe in heaven or hell.

39. Being on time is very important in our family.

40. There are set ways of doing things at home

41. We rarely volunteer when something has to be done at home.

42. If we feel like doing something on the spur of the moment we often just pick up and go.

43. Family members often criticize each other.

44. There is very little privacy in our family.

45. We always strive to do things just a little better the next time.

46. We rarely have intellectual discussions.

47. Everyone in our family has a hobby or two.

48. Family members have strict ideas about what is right and wrong.

49. People change their minds often in our family.

50. There is a strong emphasis on following rules in our family.

51. Family members really back each other up.

52. Someone usually gets upset if you complain in our family.

VI

53. Family members sometimes hit each other.

54. Family members almost always rely on themselves when a problem comes up.

55. Family members rarely worry about job promotions,school grades, etc.

56. Someone in our family plays a musical instrument.

57. Family members are not very involved in recreational activities outside work or school.

58. We believe there are some things you will just have to take on faith.

59. Family members make sure their rooms are neat.

60. Everyone has an equal say in family decisions.

61. There is very little group spirit in our family.

62. Money and paying bills is openly talked about in our family.

63. If there's a disagreement in our family,we try hard to smooth things over and keep the peace.

64. Family members strongly encourage each other to stand up for their rights.

65. In our family,we don't try that harh to succeed.

66. Family members often go to the library.

67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).

68. In our family each person has different ideas about what is right and wrong.

69. Each person's duties are clearly defined in our family.

70. We can do whatever we want to in our family.

71. We really get along well with each other.

72. We are usually careful about what we say to each other.

73. Family members often try to one-up or out-do each other.

74. It's hard to be by yourself without hurting someone's feelings in our household.

75. "Work before play" is the rule in our family.

76. Watching TV is more important than reading in our family.

77. Family members go out a lot.

78. The Bible is a very important book in our home.

79. Money is not handled very carefully in our family.
80. Rules are pretty inflexible in our household.

81. There is plenty of time and attention for everyone in our family.

82. There are a lot of spontaneous discussions in our family.

83. In our family, we believe you don't ever get anywhere by raising your voice.

84. We are not really encouraged to speak up for ourselves in our family.

85. Family members are often compared with others as to how well they are doing at work or school.

86. Family members really like music,art and literature.

87. Our main form of entertainment is watching TV ir listening to the radio.

88. Family members believe that if you sin you will be punished.

89. Dishes are usually done immediately after eating.

90. You can't get away with much in our family.

APPENDIX - IV

General Health Questionnaire – 12

(GHQ-12: Goldberg, D.,1992)

If we have experienced a particular symptom or behavior as given below recently, is rated on a four-point scale (less than usual = 0 , no more than usual = 1 , rather more than usual = 2 , or much more than usual = 3)

Sl no.	Statement	0=less than usual	1= no more than usual	2 = rather more than usual	3 = much more than usual
1	Able to concentrate	0	1	2	3
2	Lost much sleep	0	1	2	3
3	Playing useful part	0	1	2	3
4	Capable of making decisions	0	1	2	3
5	Under stress	0	1	2	3
6	Could not overcome difficulties	0	1	2	3
7	Enjoy normal activities	0	1	2	3
8	Face up to problems	0	1	2	3
9	Feeling unhappy and depressed	0	1	2	3
10	Losing confidence	0	1	2	3
11	Thinking of self as worthless	0	1	2	3
12	Feeling reasonably happy	0	1	2	3

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DEGREE	:	Master of Philosophy
DEPARTMENT	:	PSYCHOLOGY
TITLE OF DISSERTATION	:	"Stress, Family Relations and Well Being of Local Taxi Drivers in Aizawl"
DATE OFADMISSION	:	28.07.2017

APPROVAL OF RESEARCH PROPOSAL

1. BOARD OF STUDY	:	23.04.2018
2.SCHOOL BOARD	:	03.05.3018
REGISTRATION NO.& DATE	:	MZU/M.Phil./486 of03.05.2018
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4. DATE OF COMPLETION OF M Phil. COURSE WORK	:	23. 02. 2018
Extension (If any)	:	Nil

(Dr. C. LALFAMKIMA VARTE)
Head,
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(ABSTRACT)

STRESS, FAMILY RELATIONS AND WELL-BEING OF LOCAL

TAXI DRIVERS IN AIZAWL

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(Regn. No-MZU/M.Phil/486 0f 3.5.18)

Dissertation Submitted for the Degree of

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Human life has a variety of aspects among which stress is an unavoidable phenomenon. A fast-paced world, where constant pressure is an associate of daily life, has created an environment where everyone suffers from excessive stress to some degree or other. According to Cooper and Payne (2004), "physical demands on the body such as disease, exercise, extreme temperature, professional hazards and also environmental and social situations which are evaluated as potentially harmful, uncontrollable, or exceeding our resources for coping", may cause stress to manifest as an internal state. One of the major factors affecting overall productivity of an organization is occupational stress. Insecurity of employment coupled with bad treatment, long working hours and unrealistic deadlines are some of the factors which cause serious problems for workers. Occupational stress can play significant roles in bringing about health problems such as cardiovascular and gastrointestinal disorders as well as musculoskeletal disorders (Netterstorm et al 1998).

Jobs which have high psychological demands coupled with little control in decision-making and combined with low social support are deemed stressful jobs (Sinha 2008). Driving is a particularly stressful job and has high demands on one's psychological well-being, with little decision-making control combined with a low social support (Bartone 1989). Drivers have little control over the multiple demands which they must respond to. Two of the main tasks of a driver-safe driving and maintaining timely schedules- are also inherently contradictory and according to Whitelegg (1995), one must compromise on the other in order to accomplish the other task. Though social support helps protect individuals from experiencing stress, driving interrupts this social support in two ways. The solitary nature of the job gives little chance for face-to-face contact between co-workers, and the work schedule disrupts family as well as social life of the individual (Talkikar CS.,2016).

Lazarus and Folkman (1984) stated that perceived stress is a cognitive appraisal variable i.e. an understanding of events as mentioned in the stress paradigms, considered to act as mediators of the effect of stressors on psychological distress. Perceived stress signifies a subjective assessment of the degree to which the individual views events as taxing, or exceeding in coping with their resources (secondary appraisal). Bhagat and colleagues (1985) described that extreme job-related stress may be manifested in psychological functioning such as lack of involvement or disinterest, or physically through tardiness, absenteeism, or by leaving the job. Stress can affect general well-being as well as quality of life.

Occupational stress brings added stress to not only the individual, but also the household. As a further complication and danger, driver stress can also carry over from driving situations and create difficulties within the work and home environments as stated by Novaco et al (1990). Jeffrey and Beutell (1985: 77) identify three major forms of work-family conflict, namely: (a) time-based conflict, (b) strain-based conflict and, (c) behaviour-based conflict.

General well-being, as given by Verma et al (1989) refers to the subjective feelings of contentment, happiness and satisfaction with life experiences and of one's role in the world of work, one's sense of achievement, utility, and belongingness, with no distress, dissatisfaction and worry. Mental health experts advocate wellbeing as a way of improving one's life. Wellbeing helps an individual to stay resilient, build social support and self-efficacy, and cope with adversity. In positive psychology, wellbeing is a heightened state that is beyond just feelings of happiness or having good health. It is a condition of flourishing where one thrives in many aspects of one's life. As stated by Everly and Lipowski (1986, 1984), repeated exposure to stress, without effective coping, has been linked to a variety of physiological and psychological

pathologies including increased heart rate, blood pressure, anxiety, and negative effect (Henry & Stephens, 1977; Spence, 1988; Stokols et al., 1978).

The present study is the first in Mizoram, as far as the researcher is aware and theoretical and empirical data on the psychological health of taxi drivers is yet to be adequately represented in Mizo Taxi drivers. The research study has been attempted with the expectation that the results will provide a comprehensive understanding of the stress that local taxi drivers are facing, and to assess the relationship between age, stress, family relations and well being. .

A total of 204 local Taxi drivers of two age groups (younger adults- 20 to 30 years) and (older adults – 40 to 50 years), were selected from Aizawl city. The results of the study indicated no difference between young and older adult taxi drivers on the family relations measure, but there was significant differences on levels of stress and well being between the two age groups. The results depicted significantly higher levels of stress in older than younger taxi drivers and significantly lower levels of well being in older than younger taxi drivers. Additionally, well being was found to have significant negative relationship with stress and age.Also, work duration was found to significantly predict stress and well being,and alcohol consumption was found to significantly predict well being in taxi drivers.The findings of the study are consistent with existing literature and are discussed in line with the current socio-economic realities of the state.

Objectives of the study:

1. To determine the effect of age (younger and older) on the measures of stress, family relations and well-being.

2. To elucidate the relationship between stress and family relations among two age groups.

3. To elucidate the relationship between stress and well-being among two age groups.

4. To examine the role of stress and age on family relations and well-being.

Hypotheses :

1. It is expected that older taxi drivers (40-50 yrs) will report a significantly higher stress level than younger taxi drivers (20-30yrs)

2. It is expected that family relations will be better in younger taxi drivers than older taxi drivers.

3. It is expected that wellbeing will be better in younger taxi drivers than older taxi drivers.

4. It is expected that there will be a significant negative relationship between stress and family relations in both age groups.

5. It is expected that stress and age will have significant relationship on well-being and family relations.

Samples: Purposive random sampling shall be used for the present study. A total of 200, (100 younger taxi drivers ,20-30 years; 100 older taxi drivers,40-50 years) local taxi drivers from Aizawl city will be selected to serve as subjects for the study. The study will be carried out in Aizawl city and the sample for the study will be selected from the records of the Mizoram Taxi Owners Association, Zoram Taxi Drivers Association (ZTDA) and Mizoram Drivers Union.

Inclusion Criteria:

1.   The age group of the subjects should be between 20-50 years.

2.   Subjects should be married males.

3.   Subjects should have at least one year of working experience as a taxi driver.

Design of the Study: The present study shall incorporate separate group design for the conduct of the study.
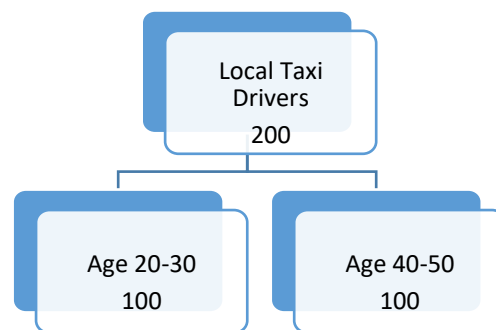

Figure 1 :- The sample characteristic table of the proposed study.

Psychological Tools:

1.   <u>Perceived Stress Scale (PSS: Cohen & Williamson,1988):</u>

Consists of 10-item scale. It was rated along 5-points Likert Scale ranging from 0 to 4,reliability was .68,and high scores show high stress. PSS is the most widely used

psychological instrument for measuring the perception of stress. It is a measure of the degree to which situation in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct community samples with at least a junior high school education. The items are easy to understand, and the responses alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. PSS scores are obtained by reversing responses (eg: 0=4, 1=3, 2=2,3=1 and 4=0) to the four positively stated items (items 4,5,7,8) and then summing across all scale items.

2.   Family Environment Scale(FES : Moos and Moos, 1974,1994,2002);

The Family Environment Scale has three forms: R (Real - people's perceptions of their current family functioning), I (Ideal - people's perceptions of the family they would ideally like) and E (Expectations - what people expect a family climate to be like). It is intended to measure ten subscales on three dimensions: Relationships (Cohesion, Expressiveness, Conflict), Personal Growth (Independence, Achievement Orientation, Intellectual-Cultural Orientation, Active-Recreational Orientation, Moral-Religious Emphasis), and System Maintenance (Organization, Control). Each informant is given a booklet with 90 statements describing different aspects/habits of his/her family. He/ she is asked to mark with 'X' whether each statement is True or False on a separate answer sheet, and the total score is

estimated for each sub-scale (with a high score positive, and a maximum score of 9, for each sub-scale). The FES sub-scales have been found to have good internal consistency and test-retest reliability Uacon and Tennenbaum, 1988; Moos, 1990). The FES sub-scales (e.g. Cohesion and Conflict) have been found to describe similar concepts to those measured by other family assessment instruments (Holahan and Moos, 1983; Bloom, 1985), which supported their construct validity (Moos and Moos, 1986). Moos (1990) asked nine independent raters to assign 45 FES items to one of five sub-scales. The finding that at least six of the raters (67%) categorized correctly 39 of the 45 items provided evidence, according to the authors, for the good content and face validity of the FES items and sub-scales.

3. General Health Questionnaire-12 (GHQ-12;Goldberg,D.,1992):

The General Health Questionnaire 12 (GHQ-12) is a 12-item self-report measure of psychological well-being. The scale asks whether the respondent has experienced a particular symptom or behavior recently. Each item is rated on a four-point Likert-type Scale with scores of 0-1-2-3 for response choices of less than usual respectively; the scores may range from 0 to 36 with lower scores indicating psychological well-being and vice versa for high scores. General Health Questionnaire (GHQ; David Goldberg,1998) contained 12 items, rated on 5 points Likert Scale, split-half reliability was found to be .95. Cronbach's Alpha on GHQ range from .82 to .90, high scores represent a higher level of wellbeing. It is screening device for identifying the minor psychiatric disorder, it has 12 questionnaires. GHQ 12 had been recommended as a reliable screening instrument for psychological distress in all clinical groups, and high scores show high psychological well-being.

Procedure: The primary data for the study was collected in a face to face interaction between the participants and the researcher in an optimum environmental setting after formation of a good rapport. The researcher took care to see that the respondents provided honest and independent answers to the questions presented. The anonymity, confidentiality and ethics as cited/ formulated by APA,2003 (American Psychiatric Association) was followed.

Statistical Analyses:

1. Psychometric properties of each of the scale and subscales of the psychological measures shall be attempted to be ascertained.

2. Descriptive statistics (mean, SD, skewness, kurtosis, etc.) shall be employed to provide an outline of the general characteristics of the variables under study.

3. Diagnostic assumptions that underlie the application of parametric tests shall be checked, if needed transformation of scores shall be done for the scale/subscales of the psychological measure.

4. Appropriate statistical analysis shall be used to test the hypothesis.

Results and Discussion

The descriptive statistics were computed including the mean, standard deviation, skewness, kurtosis, reliability, linearity of the scales in checking the normal distribution of scores for checking data structure to decide appropriate statistics on selected psychological measures such as : i)Perceived Stress Scale (Stress) ii) Family Environment Scale (Family Relations) iii) General Health Questionnaire (Well being).Secondly, Mann Whitney U Test was employed to illustrate the age,total,mean rank and sum of ranks of the variables for the whole samples.Thirdly, Post hoc-test was employed to study the direction and significance of differences between the three groups.

Fourthly, Pearson's Bivariate Correlation on scales of the behavioral measures for the whole samples were calculated to indicate significant relationship of variables for further analysis in predicting cause and effect among variables. Correlation analysis was also calculated to elucidate the relationship between work duration and stress, family relations and well being.Finally, Linear Regression was employed to analyze prediction of stress,family relations and well being by work duration and alcohol consumption.

Psychometric properties of the behavioral measures:

The parametric statistical analyses of Descriptive Statistics, Cronbach Alpha, normality, linearity, and homogeneity were checked with an objective to justify the appropriate statistical treatment for further analyses of the raw data; to work out any requirement of appropriate transformation of the raw data; missing responses, outliers and those responses outside the sampling frame as well as deviated responses from the distributed data which were excluded for statistical analyses were performed for simple and clear presentation of the results.The analysis of the skewness and kurtosis of the variables showed that the variables were highly skewed and kurtotic indicating non-normal distribution of scores. Therefore, Non-parametric statistic of Mann Whitney U test was resorted for proper interpretation of the scores.

The reliability of the scales were ascertained by the Cronbach's Alpha for each of the scales to ensure psychometric adequacy of the scales. For the PSS,the reliability was found to be .71, for the FES, reliability was found to be .95 and for GHQ-12, reliability was found to be .60. The results revealed that total coefficient of correlation and reliability coefficient of the scales ensured to be satisfactory over the levels of analysis for the whole sample.

Correlation between Stress, Family Relations,Well Being and Age.

   Correlation analysis was conducted in order to find out the relationship between stress,family relations, well being and age. Well being has significant negative correlation with stress (-.52, p<.01) and age (-.67, p< .01). Stress was also found to have significant positive correlation with age (.75, p< .01). However, there was no significant relationship between the other measures.

Comparing differences between younger and older taxi drivers

   Mann Whitney U Test was employed to find out if significant differences exist between younger and older taxi drivers on the measures of stress, family relations and well being. The PSS results indicated significantly higher levels of stress in older taxi drivers (Mean = 146.53 ; Mean Rank = 14946.50) scoring higher on stressful situations than younger taxi drivers (Mean = 58.47 ; Mean Rank = 5963.50) in the target population. In GHQ, results indicated significantly lower levels of well being in older taxi drivers (Mean = 63.08; Mean Rank = 6434.50) than younger taxi drivers (Mean = 141.92; Mean Rank = 14475.50) in the target population.The FES results indicated that there is no significant difference between younger (Mean = 102.36; Mean Rank = 10440.50) and older taxi drivers(Mean = 102.64; Mean Rank = 10469.50) in their family relations.

   Post-hoc analysis was further employed to study the direction and significance of differences between the two groups i.e., Younger taxi drivers and older taxi drivers. Results have shown that significant difference was found between younger and older taxi drivers on stress and well being.

   Linear Regression was employed to analyze the prediction of stress,family relations and well being by work duration and alcohol consumption. In PSS,results indicated that work duration significantly predicts stress at .01 level and predicted 59% of stress level in taxi drivers. In GHQ-12,results indicated that work duration significantly predicts well being at .01 level and predicted

36% of taxi drivers' well being. Also,in GHQ-12,alcohol consumption significantly predicts well being at .05 level and predicted 2.2% of well being in taxi drivers.

Hypothesis 1

It was expected that older taxi drivers (40-50 yrs) will report a significantly higher stress level than younger taxi drivers (20-30yrs).

The results showed that there are significant differences between older and younger taxi drivers on their levels of stress,where older taxi drivers showed higher scores than younger taxi drivers in the psychological measure i.e. stress.

Hypothesis 2

It was expected that family relations will be better in younger taxi drivers than older taxi drivers. The results showed no significant difference between older and younger taxi drivers on the psychological measure i.e. family relations.Hence,hypothesis 2 was rejected.

Hypothesis 3

It was expected that wellbeing will be better in younger taxi drivers than older taxi drivers.

The results showed that there are significant differences between older and younger taxi drivers on their levels of well being ,where older taxi drivers showed lower scores than younger taxi drivers in the psychological measure i.e well being.

Hypothesis 4

It was expected that there will be a significant negative relationship between stress and family relations in both age groups. There was no significant relationship between stress and family relations. Hence,hypothesis 4 was rejected.

Hypothesis 5

It was expected that stress and age will have significant relationship on well-being and family relations. The results showed that stress and age have a significant negative relationship on well being.However,no significant relationship was found on family relations.

The aim of the present study was to determine the effect of age (younger and older) on the measures of stress, family relations and well-being,to elucidate the relationship between stress and family relations among two age groups,to elucidate the relationship between stress and well-being among two age groups and to examine the role of stress and age on family relations and well-being. Summarizing from the above findings,we can say that significant differences on levels of stress and well being were found between younger and older adult taxi drivers. The results depicted significantly higher levels of stress in older than younger taxi drivers and significantly lower levels of well being in older than younger taxi drivers. Hence there is need for creating awareness regarding health promotion, balanced diet, stress management, counseling and regular medical checkup(Amit Kumar Singh,2015). The fact that driver stress has been found to influence performance, mood, and health in work and home environments (Novaco et al., 1990; Schaeffer, Street, Singer, & Baum, 1988) heightens the importance of developing techniques for dealing with personal and situational antecedents to state driver stress.Taxi industry is quite different from conventional occupations; the employee has ambiguous work

hours and the income fluctuates on a daily basis (Dalziel et al,1997)Researchers have begun to take an integrative approach to improve workplace health and safety,thus the importance of researching workplace health and safety in unconventional industry such as taxi driving may be pivotal in promoting health and safety behavior. (Chu et al,2002).Mental Health has been identified as one of the factors considered in the prevalence of fatal accidents among drivers (Karjalainen, Blencowe&Lillsunde, 2011).

The present study is the first in Mizoram, as far as the researcher is aware and theoretical and empirical data on the psychological health of taxi drivers is yet to be adequately represented in Mizo Taxi drivers. The research study is an attempt to provide a comprehensive understanding of the stress that local taxi drivers are facing, and to assess/evaluate the relationship between age, stress, family relations and well-being to propose/develop intervention strategies for overall psychological well being of taxi drivers and to prevent fatal accidents among drivers in Mizoram.