

# AGGRESSION AS A PREDICTOR OF GENERAL WELL-BEING AMONG PUBLIC HEALTH WORKERS

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## ABSTRACT

Social atrocities and discrimination make sanitary workers vulnerable to aggression which in turn disrupts their well-being. The issues concerning the psychological health of sanitary workers have been addressed less by researchers. The present study aimed to assess the level of aggression and general well-being among sanitary workers.

An aggression questionnaire, consisting of four dimensions, namely physical aggression, verbal aggression, anger and hostility was used. The PGI general well-being measure and personal profile sheet consisting of socio-demographic details was given to 150 sanitary workers who were selected through purposive sampling method.

The dimensions of aggression- anger and hostility were negatively correlated with the general well-being of the participants. Amongst the four dimensions of aggression, anger is found to be the predictor of general well-being.

## KEYWORDS

aggression, general well-being, sanitary workers

## INTRODUCTION

In India, according to a report by Dalberg 2019, there were approximately 5 million sanitary workers, out of which nearly 2.5 million were exposed to a high level of occupational risks and dangers [1]. The World Bank, on its website, defines Sanitary Workers as "men and women who empty pits and septic tanks, clean toilets, sewers and manholes and operate pumping stations and treatment plants" [2]. In any civic cleaning system, sanitary workers were considered as the backbone of society. In many developing countries where the resources were limited, most of the waste handling works were done manually by them [3]. They are

also facing problems of little or inconsistent pay, no fruitful policies and laws to aid them, no facilities for their children like insurance policies, support for school education and other basic rights which were given to other employees. Many of the challenges that sanitation workers face stem from their lack of visibility in society. They are stigmatised, marginalised and their voices ignored by the people in power [4]. The sanitation workers face many social atrocities [5]. These atrocities include their poor working conditions and the non availability of the basic gear that are meant to protect them against poisonous gas and germs in the sewage. The sanitation workers do not get the basic respect that one can expect for a human being. They

are stigmatized as untouchables and were never part of the main stream society. The job undertaken by sanitary workers is often found to be a target of stigmatization. This lack of acknowledgment, adds to their health and family issues, leading to inflated levels of frustration and aggression.

Aggression is a harmful social interaction often expressed to inflict unpleasantness among others. There can be various triggers of aggression with the more important one is feeling disrespected in society [6]. Other factors such as alcohol [7], pain and discomfort [8] and frustration [9] can also trigger aggression. One of the key aspects of mental health, well-being, is affected drastically, as these sectors of people are not recognised for the kind of work they do. The WHO defines [10] well-being in terms of mental health in which how an individual perceives his or her potential, the ways of coping with the normal life stressors, the ability to work effectively and fruitfully and how can contribute to the family, society and community. Such psychological issues of sanitary workers remain unexplored and, the research studies in the above-mentioned psychological constructs were inadequate and restricted.

## METHOD

### PARTICIPANTS

From Coimbatore district, Tamilnadu, India, 162 sanitary workers in the age range of 20-60 years were selected using purposive sampling technique from various working sectors viz., public, private and agency.

### MATERIALS

**A personal profile sheet** was designed by the researchers to collect the demographic details of the participants such as their name, gender, age, marital status, number of children, family type, presence of health issues and details about their health risk habits like smoking, use of alcohol, pan, betel leaves or no habits.

**The aggression questionnaire** developed by Buss and Perry (1992) [11].

**The PGI General well-being measure** developed by Verma and Verma (1989) [12].

**Adult consent form** – Before data collection, the participants were given an explanation about the research

purpose, and they were given the consent form to express their voluntary consent for participation.

### PROCEDURE

Public sanitary workers work for the government. In the present study, the data is collected from the sanitary workers working in Coimbatore Municipal Corporation. Private sanitary workers work in private institutions such as schools, colleges, hospitals and other commercial operations. Agency sanitary workers also work in private institutions but are employed by a particular organisation which provides the employment service to those private institutions.

As the study followed non-experimental research design, ethical clearance was not sought. The respective questionnaires were identified as they were found to be relevant for this study. The aggression questionnaire by Buss and Perry (1992) has all the four types of aggression elements: physical and verbal aggression, anger and hostility. The scale identified to study the general well-being was widely used in many studies, across disciplines. Hence, the researchers found reasons to choose these two questionnaires to collect the data from sanitation workers. After an expression of their consent to take part in the research study, the participants were interviewed and the data were filled by an enumerator. Although 162 participants extended their consent initially, only 150 data were found to be complete and incorporated for further statistical analysis. As the primary language of the participants was Tamil, the researcher conducted interview sessions with the participants and all the statements in the questionnaires were verbally explained to the sanitary workers in Tamil by the researcher. The research was completed under the supervision of a university professor.

### DATA ANALYSIS

The study involves analysis of the relationship between the dependent and independent variables. In the first step, the relationship between the variables was studied by subjecting the data for correlation analysis. In second step, in order to find the presence of any predictor role, regression analysis was carried out. The elaborate discussions on the outcome of these analyses are given under discussion section.

## RESULTS

### DEMOGRAPHIC DETAILS OF THE SAMPLE

The socio-demographic distribution of the 150 participants in this study were as follows: Gender - male 50%, female 50%; Marital Status - married 85%, unmarried 5%, single- 10%; Education - literates 17%, illiterates- 83%; Number of

Children - No child 10%, 1 child 16%, 2 children 55%, 3 children 17% and 4 children 2%; Family Type - joint 25%, nuclear 75%; Presence of Health Issues - yes 16%, no- 84% ; Presence of Health Risk Habits - alcohol 17%, smoking 18%, pan 5%, tobacco 12%, no habits- 48%; Type of Working Sector - public 36%, private 39%, agency 25%.

**TABLE 1 MEAN AND SD OF AGGRESSION AND GENERAL WELL-BEING (N= 150)**

Variable		Mean (SD)
Aggression	Physical	26.01 (6.54)
	Verbal	12.22 (4.52)
	Anger	15.52 (5.18)
	Hostility	18.96 (6.75)
General well-being		16.84 (4.32)

Table 1 displays the mean and SD of aggression and general well-being. The mean physical aggression of the sample was 26.01, verbal aggression was 12.22, anger was 15.52 and hostility was 18.96 which were interpreted as

moderate. The mean general well-being was 16.84 which were interpreted as high well-being.

**TABLE- 2 SOCIO-DEMOGRAPHIC DIFFERENCES FOR AGGRESSION AND GENERAL WELL-BEING (N= 150)**

Variables	Group	N	Mean (SD)	T	Sig
Verbal Aggression	Male	54	13.22(4.68)	-2.06	0.05
	Female	96	11.66(4.35)		
	Public male	45	13.09(4.82)	7.24	<0.00
	Public female	9	11.67(2.18)		
	Private female	59	10.17(3.79)		
	Agency female	15	13.7(3.75)		
	Agency male	22	15.1 (4.59)		
Anger	Male	54	14.3 (4.54)	2.20	0.03
	Female	96	16.21(5.41)		
	Presence of illness	24	17.38(4.18)	-2.27	0.03
	No illness	126	15.17(5.29)		
	Public male	45	13.8 (4.25)	2.47	0.05
	Public female	9	14.11(3.82)		
	Private female	59	16.12 (5.2)		
	Agency female	15	17.2 (4.91)		
Agency male	22	16.82(6.65)			
Hostility	Presence of illness	24	22.25(5.46)	-2.67	0.01
	No illness	126	18.33(6.77)		
General well-being	Health compromising behaviours-Alcohol	26	17 (4.62)	2.66	0.04
	Smoking	27	18.4 (2.41)		
	Pan	8	19.5 (1.07)		

	Betel	18	16.89(4.86)		
	Nil	71	15.87(4.63)		
	Public male	45	18.64(2.39)	3.87	0.01
	Public female	9	13.67(7.14)		
	Private female	59	16.17(4.51)		
	Agency female	15	16.53 (4.9)		
	Agency male	22	16.46(4.01)		
	Male	54	18.69(2.22)	4.13	<0.00
	Female	96	15.8 (4.85)		

TABLE 3 RELATIONSHIP BETWEEN AGE, AGGRESSION AND GENERAL WELL-BEING (N= 150)

Variables	Age	Physical Aggression	General Well-being
Age	1	-0.163*	-0.089
Physical Aggression		1	-0.134
Verbal Aggression			-0.034
Anger			-0.407**
Hostility			-0.234**

TABLE 4 INFLUENCE OF ANGER ON WELL-BEING (N= 150)

Dependent Variable	Independent Variable	R <sup>2</sup>	B	Unstandardised coefficients		Standardised coefficients	t	Sig
				B	Std error	Beta		
General well-being	Anger	0.20	-3.97	-0.31	0.08	0.08	-3.67	<0.00

## DISCUSSION

This study aimed at finding out the influence of aggression on the general well-being among sanitary workers. For this Pearson's correlation analysis and linear regression analysis were carried out and the results are displayed in Tables 3 and 4. In Step 1 to find the relationship between aggression, age and general well-being, Pearson's correlation analysis was carried out and it was found that out of four dimensions of aggression namely physical, verbal, anger and hostility, only anger and hostility were found to be negatively related to general well-being. This result is perfectly in line with the findings of Siewert et al., (2011) [13] who reported that hostile goal pursuit as such did not affect perceived social well-being. However, the reduction of social well-being subsequent to hostile thoughts was moderated by trait anger. In Step 2, to probe the accuracy of the above interpretation, regression analysis was carried out and it was found that among the dimensions of aggression, the influence of anger on general well-being was found to be significant. Work by Gilam and Hendler [14] suggests that

fundamentally anger is considered as an emotion that is helpful for our survival and it is common to all species. However, human beings possess the ability to control anger through mental flexibility by means of regulating it in a more socially acceptable form. If we fail to do so, it will be reflected in many things such as impaired well-being. In a similar vein, according to a report by the Health and Safety Authority of Dublin in 2014 [15], work-related aggression and violence is the third chief factor for injuries in health care service industries. It threatens the safety and well-being of the public and the employees should be well trained to deal with their work-related stresses. Thus, it should be noted that aggression, even in a moderate form, potentially disturbs the well-being of sanitary workers.

Concerning demographic variables, age was found to be negatively related to physical aggression. As age increases the level of physical aggression was found to be decreasing. This result can be comparable with the findings of [16] who stated that improved management of emotions with age is an important factor in maintaining well-being in old age.

A particularly serious issue was found amongst sanitary workers concerning their health risk habits. Out of 150 participants, 26 were addicted to alcohol, 27 reportedly smoking, 5 used pan and gutka (a form of tobacco consumption without smoking, especially in India), 18 were to tobacco and 71 participants were not addicted to any substances. In other words, almost 49% of participants were involved in one or more health risk habits and 51% of the participants did not report having any type of health risk habits. Current literature shows a large number of publication evidence relating to this and a particularly relevant example for this notion was the recent study by Phillips et al. [16] which exhibited that prolonged use of substances will result in poor mental health and thus their overall life expectancy is significantly reduced with an average expectancy of lesser than 50 years. Similarly, a report by Water Aid [3] stated that many sanitary workers choose to work under the influence of certain harmful substances like alcohol or drugs in an attempt to escape from the cruel work conditions of their job which advance the possibilities of mishaps. Also, a study by Bhatnagar [17] reported that sanitary workers abuse substances like tobacco 3 (15%), gutka 18 (90%) and consumption of alcohol 2 (10%). Furthermore, the findings of Patil and Kamble [18] stated that almost 50% of the sanitary workers were addicted to tobacco and due to this they suffer from serious oral problems. Surprisingly, the sanitary workers who were using the substances were found to score higher in the level of general well-being and the sanitary workers who were not using the substances were found to score low in general well-being. This finding offers a number of unique insights regarding individual well-being. In spite of the robust findings relating to the level of well-being and positive behaviours, there was still a collection of contradictory evidence regarding this idea that was found in the literature. For example, during past decades voluminous evidence documented that positive feelings and expectancies for desirable outcome were positively related with individual well-being [19–21]. However, the feeling of well-being is a highly individual construct and many times it depends on the perception of the individual. This argument derives support from the studies done by [22–24] which reported that optimism and expectancies for desirable outcomes can have harmful consequences also. A prominent, study done by Taylor et al. (1984) [22], for example, reported that positive people are less probably disengage themselves from gambling—even after suffering severe gambling losses. Rather how these traits are implicated concerning well-being depends on environmental circumstances where people function [18].

It can be concluded that although it was a proven fact that any dependence on substances will certainly impair the level of well-being among individuals in many cases, the present paper derived contradictory results. Even though the reasons behind these results were briefly discussed, further exploratory research focusing only on the above mentioned theoretical construct will be highly useful.

The socio-demographic differences for aggression and general well-being were presented in Table 2. Concerning gender, males had scored higher mean value than females in verbal aggression and general well-being whereas females scored higher in anger. The gender difference in the level of aggression and anger had been studied on a variety of domains and importantly qualitative research done by Isaacowitz and Seligman [25] advocated that there was a significant difference in the ways anger and aggression were expressed by men and women. Women, often express their anger in more expressive ways such as speaking openly about their feelings with overwhelming levels of anger and arousal and losing their self-control followed by feeling guilty of their own objectionable behaviour. But unlike women, men behave in a contrasting way. Norem [26] extended this argument by stating hyper-masculinity in men may be a risk factor for perpetrating violence and these men have a lower aggression threshold. Hence the current study is in line with the above findings regarding gender differences in the level of aggression and anger.

In relation to the working sector, difference exists for the variables verbal aggression, anger and general well-being. The efficiency of workers determined by various factors and type of working sector is one among them. Considering the presence of illness participants reported as affected with illness scored higher in hostility and anger than participants with no illness. The sanitary workers who were suffering from health issues like diabetes, somatic pains, Coronary Heart Disease (CHD) and other ailments, found to score higher than the sanitary workers who did not have any health-related problems. This finding was agreed by many research bodies which stated the list of illnesses and health hazards the sanitary workers face were almost endless [3]. The majority of the sanitary workers are exposed to dirt, pathological germs, harsh substances and human and animal wastes. Because of their low economic status, they afford poor nutrients and thus are prone to many diseases and infections [27]. A work by Rachiotis [28] suggests that the sanitary workers are exposed with a high risk of Hepatitis

B virus (HBV) infections and it is thus the potential path of transmission due to occupational injuries such as sharp objects or needles. They are also exposed to vigorous occupational situations such as extreme levels of temperatures, poor lighting and high work measures [29]. Because of these challenging and extreme working conditions, the sanitary workers who were the victims of health issues get frustrated very easily and this leads to an increased level of hostility.

## STUDY LIMITATIONS

The study has some limitations. The first was the description nature of the study design. The participants' psychological issues were only addressed but not modified through any interventions. Similarly, the assessments were based on self-reporting and hence some information bias might have occurred. The data was collected from a region of Coimbatore, India and the generalizability of the results globally is subject to further study in some other region of the globe.

## STRENGTHS OF THE STUDY

Regardless of the robust findings linking the occupational and health hazards of sanitary workers, it could be perceived that the issues concerning psychological aspects had been overlooked by many researchers. The present study has the advantage that the psychological issues were discussed in a more elaborative and multidimensional view and this will be highly helpful in designing strategic focus on the full range of possible psychological issues that arise among sanitary workers.

## CONCLUSIONS

Based on the socio-demographic variables collected from the sanitary workers, it was found that almost 83% of the sanitary workers were illiterate, 16% of them reported that they were suffering from health issues and 49% of them were found to be depended on substances. The mean well-being of sanitary workers was interpreted as high and mean scores of all other variables were found to be moderate.

Concerning the dimensions of aggression, anger and hostility are negatively correlated with the general well-being of the participants. Among the four dimensions of aggression, anger was found to be the predictor of general well-being. While considering the general well-being of sanitary workers, the value was found to be 16.84 and was interpreted as high well-being. Although the present study

found that the level of well-being was high among sanitary workers, the reviews showed contradictory evidence. However, conceptualizing is a complex phenomenon. A particularly relevant example of this opinion is a study done by [18] who claimed that well-being is not determined solely by people's psychological characteristics but instead is determined jointly by the interplay between those characteristics and qualities of peoples' social environments. The independent sample t-test and ANOVA were carried out to find out the socio-demographic differences for aggression and general well-being. It was found that in verbal aggression there was a difference in gender and work sector. The mean value of male and female verbal aggression denotes that male sanitary worker scored higher than female sanitary workers.

In contrast to previous findings concerning working sectors, male sanitary workers working in agencies scored high mean value and the female sanitary workers working in private sectors scored least in verbal aggression. Similarly in anger, there exists gender difference, where female sanitary workers scored higher than male sanitary workers [30] discount the fact that private sector is usually more efficient and accountable than the public sector. The efficiency of workers determined by various factors and cannot be generalised. Also, the presence of health issues was found to be significantly different for anger. The sanitary workers who were suffering from health issues like diabetes, pains, CHD and so on, were found to score higher than the sanitary workers who did not have any health-related problems. This finding is agreed by many research bodies stated the list of illnesses and health hazards they face is almost endless [3]. The majority of sanitary workers are exposed to dirt, pathological germs, harsh substances and human and animal waste. Because of their low economic status, they can only afford poor nutrients and thus prone to many diseases and infections [29]. The female sanitary workers working in the agency had scored high and the male sanitary workers working in public i.e., the government had scored least and this found to be significant. Hence there exist differences between the employees working in public institutions and other sectors. When compared with private institutions, agency workers cannot exhibit their emotions freely as they are answerable to both (agency and workplace) the management and hence agency sanitary workers have high verbal aggression when compared with others. Also, the agency workers cannot vent their anger as freely as public sector workers do.



Concerning the hostility dimension, the presence of health issues was found to be significantly different. The sanitary workers who were suffering from health issues found to score higher in hostility than the sanitary workers who did not have any health related problems. Considering the general well-being there exists a significant difference related to health-compromising behaviours. Pearson's correlation was carried out to find out the relationship between age, aggression and general well-being. Among the dimensions of aggression, physical aggression is negatively related to age. In the similar way general well-being is negatively related with anger and hostility. It should be noted that this finding can be comparable with the findings of [12] who reported that hostile goal pursuit as such did not affect perceived social well-being. However, reduction of social well-being subsequent to hostile thoughts was moderated by trait anger. Among the dimensions of aggression, the influence of anger on general well-being is found to be significant. In a study amongst young and middle aged participants, [24] it was found that optimism was found to be associated with high level of depression particularly among older population over time. This finding is contradictory to the positive implications of optimism. The tendency to interpret events in an optimistic way concerning undesirable experiences is found to be associated with individual characteristics [31,32]. It should be noted that many studies reported that the psychological traits and characteristics that people possess are not characteristically positive or negative. Rather how these traits are implicated concerning well-being depends on environmental circumstances where people function [18].

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