



Employment and Mental Health: A Comparative Study Among Persons with Disability and without any Disability in Kolkata

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Abstract: The status of employment or gainful engagement often has a positive impact on the mental health of an individual. However, adults with some form of disabilities often face discrimination and find it difficult to get involved in gainful employment. In the context of this supposition, the present study aims to assess the impact of employment standing and engagement profile of the differently abled persons on their mental health, often exacerbated in the form of depression, anxiety, stress and self-esteem. The same was derived by comparison with the data by assessing impact of employment standing and engagement profile of the persons without any condition of disability. Depression Anxiety Stress Scale (DASS) scale by Lovibond and Lovibond (1995) and Rosenberg's Self-esteem Scale (1965) were used in the study. The data was collected in city of Kolkata, West Bengal from 148 adults with some form of disability, and 180 adults without any disability. Outcome from the study reveal that employment among persons cutting across the spectrum has a positive impact on the mental health of a person. Nevertheless, gainful engagement has relatively more profound and meaningful impact that has positive bearing on the self-esteem of a differently-abled individual ($p < 0.05$) than a person without any form of disability.

Index Terms: Employment, Disability, Well-being, Self-esteem, Mental Health.

I. INTRODUCTION

Disability is an integral part of human existence. Every human being may momentarily or everlastingly experience disability at some point or other in their lives. Disability may result from the interface between individuals with a health condition such as deafness, blindness, Down's syndrome and mental health issues like depression. It may also involve personal and environmental societal factors like negative attitudes, stigma, inaccessible resources, and limited social support, poverty and vulnerability. People with any form of disability generally are vulnerable to

poorer health outcomes, have less access to education, skill formation and training and work opportunities. These results in a cumulative effect where the person has high chances to live in relative poverty than those without a disability. This even leads to their exclusion from gaining access to the much-needed health care services. Studies show that fifty percent of people with disability cannot have enough resources to pay for the essential healthcare services. People with disability are also more than twice as likely to find healthcare providers. Of the various types of disabilities, physical disabilities can be generally defined as impairments which are either permanent or long-term condition which affects a part of a person's body that impairs and limits their physical functioning, mobility, stamina or dexterity. This can restrict participation and involvement of an individual in activities such as remunerative or gainful employment. About, 2.2 percent of Indian population report a physical disability, which is about 2.68 crore of people. However, being physically disadvantaged does not mean that they are incapable or lack skill. But in real life existence we generally observe situations where those with disabilities face discrimination not only in their day-to-day existence but also are less likely to get hired for gainful economic activities. Studies have shown that these adverse discriminations and even in some cases stigmatization has a profound impact on the mental health status of the person in question. This leads to a dual burden on the person leading to not only deal with the physical disabilities but also face the emotional and psychological problems.

Actually, employment specifically provides a time structure, which defines the daily activity sheet of an individual. The absence of such a time structure may cause psychological distress. Employment offers a social contact, where a person gains a context outside the family and has to work collectively with people from diverse background. It also gives the person an

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essential social identity which positions the person within his social context. The regular activity due to employment provides a definite purpose in one's life. Studies have shown that, being an earning member in a family adds to the self-esteem of the person. Employment provides a sense of independence and security; it adds to the self-confidence of the person. Conversely, being unemployed leads to lower self-esteem and depression and a sense of value-less-ness in an individual. Moreover, the employment status also has a role in social positioning of a person. All these things have a profound bearing on the overall mental health of that person.

In the context of the above, it may be argued that gainful employment of those who have some kind of physical disabilities will lead to a positive impact on their mental health. This will be particularly significant as engaging the people with disabilities in the mainstream societal functioning will lead to the dual benefit of increased labour force participation as well as increased wellbeing of the people with disabilities. In the context of the fact that disability is a global public health issue as it affects one in seven people worldwide; it is also a human rights issue as people with disability are among the world's most discriminated people, often experiencing violence, prejudice and denial of autonomy as well as facing barriers to care; and it is a development priority as it has a higher prevalence in lower-income countries and disability and poverty mutually reinforce each other; the present paper will thus, try to look into the impact of the employment status on the mental health of the persons with disabilities and those without it. It will try to draw comparisons in this context as well as the paper will seek to look into the association of mental well-being of a person with his/her employment status.

II. LITERATURE SURVEY

There are number of studies which show that disability, physical disability in particular has a profound impact on mental health of a person. Longitudinal study by Turner & Noh (1988) shows a strong correlation between disability and depression. Brown & Turner (2010) in their study showed that physical disability had a strong correlation with depression. Mushtaq & Akhouri, (2016) showed in their study that self-esteem, anxiety, depression and stress among physically disabled people was considerably higher than that of those without the disabilities. Narimani & Mousazadeh, (2010) compared self-esteem and self-concept of handicapped and normal students and found that disability was responsible for lower self-esteems. Lau, & Cheung. (1999) showed how people with intellectual disability faced discriminatory attitudes towards them. In their seminal work on the world data sets of mental health, Scott, et.al. (2009) showed that mental-physical co-morbidity and its relationship with disability. Tough, et.al. (2017) did a systematic review on mental health, wellbeing and physical disability and established the association between them. Arnold & Chapman (1992) showed that adolescents with physical disability had significantly lower

self-esteem and aspirations. Taleporos & McCabe (2002) studied the impact of sexual esteem, body esteem, and sexual satisfaction on psychological well-being in people with physical disability and found that disability was a detrimental factor in their wellbeing. The study by Blake & Rust (2002) reinforced that disabilities in physical form acted as impediments to self-esteem and self-efficacy. Zhong et.al. (2019) showed in their study that, self-esteem mediates the relationships between social support, subjective well-being, and perceived discrimination in people with physical disability. Chang & Johnson (2008), showed that physical disability either congenital or acquired may lead to feelings of inadequacy. Marschark (1993) suggested a strong relationship between physical disability and mental wellbeing. A study by Jennings, (1988) showed that the disabled individual may similarly retreat to a lower level due to personality maladjustment. Dell Orto & Power, (2007) showed in their study that people who experience physical impediment are more likely to have low frustration tolerance. Boswell & Wingrove (1974) found out that those with physical disability suffer more from anxiety and depression. Further, studies by Nosek et al., (2003); Mushtaq & Akhouri (2016); Cornwell & Schmitt (1990) showed that disabilities are associated with low self-esteem.

On the other hand, gainful economic activity or employment apart from providing a direct tangible benefit to a person also has some intangible benefits. Studies have found that unemployment affects the self-concept and self-esteem of a person as one's job is often an important component of an individual's personal identity. Turner & Turner (2004), in their seminal work showed that unemployment threatens the identity and can damage an individual's sense of self-worth. They have specifically dealt with the adverse effect of disability. McKeeRyan et.al. (2005) in their study show that when people lose their jobs, they tend to experience a significant deterioration in mental health, and when unemployed persons find new jobs, their mental health improves significantly. Warr (1987) in his study showcased the impact of work and unemployment on mental health. The therapeutic effect of gainful employment is shown in the study by Waddell & Burton, (2006). Conversely, Paul & Moser (2009) in their meta-analytical study found that unemployment has a regressive effect on mental health. Omolayo (2009) in their comparative study showed the differences in the self-motivational needs and self-esteem of the disabled and the non-disabled.

In the context of the above, it may be argued that gainful employment of those who have some kind of physical disabilities will lead to a positive impact on their mental health. This will be particularly significant as engaging the people with disabilities in the mainstream societal functioning will lead to the dual benefit of increased labour force participation as well as increased wellbeing of the people with disabilities. In the context of the fact that disability is a global public health issue as it affects one in seven people worldwide; it is also a human rights issue as people with disability are among the world's most discriminated people,

often experiencing violence, prejudice and denial of autonomy as well as facing barriers to care; and it is a development priority as it has a higher prevalence in lower-income countries and disability and poverty mutually reinforce each other; the present paper will thus, try to look into the impact of the employment status on the mental health of the persons with disabilities and those without it. It will try to draw comparisons in this context as well as the paper will seek to look into the association of mental well-being of a person with his/her employment status.

III. OBJECTIVES

- To measure the levels of depression, anxiety, stress and self-esteem (as proxies of mental health) of persons with disabilities and those without it.
- To look into the association if any between the employment status and mental health status of persons with disabilities and without it.
- To look into the differences if any in the mental health of the persons with disabilities and without it.

IV. HYPOTHESIS

H01 There are no significant differences in the mental health parameters of persons with disabilities and those without it.

H02 There are no significant differences in the mental health parameters of employed and unemployed persons with disabilities.

H03 There are no significant differences in the mental health parameters with respect to gender.

H04: There are no significant differences in the mental health parameters controlling for disability for differences in employment status.

H05: There are no significant differences in the mental health parameters controlling for disability and gender for differences in employment status.

H06: There is no association between mental health parameters and employment status.

H07: There is no association between mental health status and disability status.

V. PROPOSED APPROACH

A. Sample

For the present study snowball sampling followed to collect the requisite sample. The sample consisted of 148 persons with physical disabilities and 180 persons who did not have any physical disabilities. Of the 148, 97 were men and 51 were women. Similarly, of the 180, 96 were men and 84 were women. The age range of the sample was 25 to 40 years. For the sake of clarity of analysis, the socio-economic status, education, location was controlled. The mental health of the subjects was tried to assess by the levels of depression, anxiety and stress levels along with their self-esteem.

B. Procedure

A self-made questionnaire was designed to elicit basic demographic information from the sample. Initially the subjects were personally contacted and rapport was established with them. Those who were willing to participate voluntarily, were only included in the study. First of all, personal data sheet was administered to the subjects and relevant information were collected. Student volunteers helped in collection of the data. Thereafter, the DASS-42 and Rosenberg Self-esteem scale were administered to the subjects one by one. It was stated to the participants that their answers would be strictly confidential. Because sign language was the primary communication means for a group of participants, an interpreter was present who could communicate with the participant (wherever the need be). It was also checked whether the subjects faced any problems or not. It was made clear to them that there were no right and wrong answers. If they had any difficulty, they were encouraged to ask questions. They were also asked to answer the questions accordingly. The test administration took about 45 minutes to one hour. After collecting the questionnaire from them the copies were counted. The subjects were thanked for their cooperation and spending their valuable time.

C. Tools

The scales used in the study were DASS and Rosenberg self-esteem scale.

“DASS is a 42-item questionnaire which includes three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of these three scales contains 14 items, divided into subscales of 2-5 items with similar content. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale (items) is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Respondents are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state over the past week. Each of these is rated on a four-point Likert scale of frequency or severity of the participants' experiences over the last week with the intention of emphasizing states over traits. These scores ranged from 0, meaning that the client believed the item "did not apply to them at all", to 3 meaning that the client considered the item to "apply to them very much, or most of the time". It is also stressed in the instructions that there are no right or wrong answers.” (Retrieved on February 05, 2021 from <https://www.scribd.com/document/442368663/3> and [https://en.wikipedia.org/wiki/DASS_\(psychology\)](https://en.wikipedia.org/wiki/DASS_(psychology)))

“Developed by the sociologist Morris Rosenberg, is a self-esteem measure widely used in social-science research. It uses a scale of 0–30 where a score less than 15 may indicate a problematic low self-esteem. The RSES is designed similar to the social-survey questionnaires. It is a ten-item Likert type scale with items answered on a four-point scale—from strongly agree to strongly disagree. Five of the items have positively worded statements and five have negatively worded ones. The scale measures global self-worth by measuring both positive and negative feelings about the self. The Rosenberg self-esteem scale is considered a reliable and valid quantitative tool for self-esteem assessment. The Rosenberg Self-Esteem Scale presented high ratings in reliability areas; internal consistency was 0.77, minimum Coefficient of Reproducibility was at least 0.90.” (Retrieved on February 05, 2021 from https://www.statisticssolutions.com/rosenberg-self-esteem-scale-ses/?_cf_chl_jschl_tk and [https://en.wikipedia.org/wiki/DASS_\(psychology\)](https://en.wikipedia.org/wiki/DASS_(psychology)))

The statistical analysis of the collected data was done by the SPSS 19 software.

VI. RESULT AND DISCUSSIONS

In the study the age range of the participants was 25 to 40 years with the mean age of 32.8 years and standard deviation of 5.7 years. The sample was controlled for geographical location as it was confined to the city of Kolkata. Further, the median years of education was 15 years (with a range of 12 to 17 years) as most of the persons were graduates and some were even postgraduates. Another, control variable was the income where the average income of those employed was Rs.27825 with standard deviation of Rs.1020. As the main aim was an in-depth comparative study thus the variations across the income groups were controlled. In the sample we had 148 person who had some kind of physical disability. Again, for clarity in analysis the physical disability was restricted to only two types, viz, those who were hard of hearing (106) and those who were blind (42). Out of 148 people 97 were men and 51 were women. Also 60 people were employed while 88 were willing to work but could not get an opportunity of being employed. Similarly, in the group of people without any disability we had 94 men and 86 women. In this group 155 were employed and 25 were unemployed. The average age of the former group was 35.45 years while that of the latter group was 28.5 years.

Going to the inferential statistical analysis, we have first tried to look into the differences in the parameters of mental health in form of depression, anxiety, stress and self-esteem in the groups of people who were disabled and those who were not. The results are summarized in table I below where the results of ANOVA are summarized. Table I basically shows the statistically significant differences if any between those who have some form of physical disability and those who do not have so.

Table I Summarized, ANOVA for differences (Total).

Df (1, 327)	Not-Disabled Disabled	Unemployed and Employed f	Male Female
DEPRESSION (F value)	5.1	5.2	7.0
Sig	0.00*	0.018*	0.18
ANXIETY (F value)	3.7	6.1	7.5
Sig	0.67	0.52	0.98
STRESS (F value)	7.8	5.2	4.3
Sig	0.86	0.04*	0.76
SELF ESTEEM (F value)	6.0	4.3	8.6
Sig	0.02*	0.007*	0.66
p<0.05			

In the table I, second column, we see that all the parameters like Depression, and Self-esteem are significantly different between those having physical disability and those not having disability at 0.05 levels of significance. So null hypothesis H01 is partially accepted (for stress and anxiety). However, for Depression and Self-esteem we see that the alternative hypothesis is accepted. This result is in fact supported by a number of studies discussed in the review of literature where physical disability is seen to affect the mental health and self-esteem of the person in concern. Next, we look into the differences in the employment status irrespective of disability. The results are shown in third column. We can see that differences in the employment status have an effect in the depression, anxiety and self-esteem which are all statistically significant at 0.05 levels of significance. So, on all the four count we find that employment is having a profound impact Null hypothesis H02 is rejected and alternative hypothesis is accepted. We also try to look into the differences in gender on the mental health parameters. Here we see that the results are not statistically significant for the differences in the two groups. So the Null hypothesis is H03 is accepted.

To have a better understanding of the impact of employment we control for the disability and look separately into the variations in mental health parameters. This is done in the table II and III below where table II displays the disabled group, so that differences in employment status or gender could be observed for mental health indicators within that group. Similarly, for table III the group of respondents without any disability were considered, and the differences in mental health indicators as depression, anxiety and stress along with self-esteem was considered separately for the two groups employed and unemployed and male and female.

Table II Summarized, ANOVA for differences (Disability).

Disabled Df (1, 147)	Unemployed and Employed f	Male Female
DEPRESSION (F value)	7.2	3.0
Sig	0.08*	0.18
ANXIETY (F value)	5.1	2.5
Sig	0.01*	0.98
STRESS (F value)	4.2	2.3
Sig	0.014*	0.76
SELF ESTEEM (F value)	7.3	36
Sig	0.000*	0.66
p<0.05		

Table II summarizes the outcomes of ANOVA for differences in the unemployed and employed and male and female for those with physical disabilities. As is obvious from the table II that on all the counts the differences are statistically significant, so the Null hypothesis is rejected and alternative hypothesis accepted. Within the group with physical disability, we find that gender do not have any specific impact on the mental health parameters. The same is repeated for the not disabled group.

Table III Summarized, ANOVA for differences (Not Disabled).

Not Disabled (1,179)	Unemployed and Employed f	Male Female
DEPRESSION (F value)	5.2	7.0
Sig	0.01*	0.18
ANXIETY (F value)	6.1	7.5
Sig	0.003*	0.98
STRESS (F value)	5.2	4.3
Sig	0.032*	0.76
SELF ESTEEM (F value)	4.3	8.6
Sig	0.001*	0.66
p<0.05		

As is obvious, it may be seen that the results in table III are in conformity with table II. Thus, for the not disabled group too, we find that employment status does have a significant role while gender do not have such an impact on the depression, anxiety stress and self esteem of the person in concern.

Next, we repeat the exercise, controlling for both disability and Gender and get the following table IV and V

Table IV Summarized, ANOVA Female- Disabled and Not Disabled

Df (1, 136)	Disabled (Female) Unemployed and Employed f	Not Disabled (Female) Unemployed and Employed f
DEPRESSION (F value)	4.2	7.0
Sig	0.018*	0.008
ANXIETY (F value)	3.1	7.5
Sig	0.52	0.001
STRESS (F value)	4.2	4.3
Sig	0.04*	0.006
SELF ESTEEM (F value)	5.3	8.6
Sig	0.007*	0.00
p<0.05		

Table V Summarized, ANOVA Male- Disabled and Not Disabled

Df (1, 190)	Disabled (Male) Unemployed and Employed	Not Disabled (Male) Unemployed and Employed
DEPRESSION (F value)	6.2	6.0
Sig	0.018*	0.18
ANXIETY (F value)	8.1	5.5
Sig	0.52	0.02
STRESS (F value)	9.2	5.3
Sig	0.04*	0.002
SELF ESTEEM (F value)	2.3	6.6
Sig	0.007*	0.01
p<0.05		

Interestingly, controlling for both gender and disability we can see that on all the counts the results are significant at 5% level of significance for all the groups. (Disabled-Female; Not Disabled -Female; Disabled-Male; Not Disabled -Male) for those who are employed are those who are not. For looking into the association, we look into the Chi Square values as shown in table VI

Table VI: Chi square for association (2X2)

Df (2)	Disabled Not Disabled	Unemployed and Employed
DEPRESSION (F value)	6.2	6.0
Sig	0.001*	0.008*
ANXIETY (F value)	7.1	5.5
Sig	0.312	0.002*
STRESS (F value)	9.2	5.3
Sig	0.31	0.001*
SELF ESTEEM (F value)	7.3	6.6
Sig	0.001*	0.001*
p<0.05		

The chi square test results show that there is a significant association between the employment status and mental health of a person irrespective of disability status. However, for the disability we find that depression and self-esteem are associated with the disability status of a person. The results of the present study are being supported by studies like Mushtaq & Akhouri. (2016).

Actually, employment specifically provides a time structure, which defines the daily activity sheet of an individual. The absence of such a time structure may cause psychological distress. Employment offers a social contact, where a person gains a context outside the family and has to work collectively with people from diverse background. It also gives the person an essential social identity which positions the person within his social context. The regular activity due to employment provides a definite purpose in one's life. Studies have shown that, being an earning member in a family adds to the self-esteem of the person. Employment provides a sense of independence and security; it adds to the self-confidence of the person. Conversely, being unemployed leads to lower self-esteem and depression and a sense of value-less-ness in an individual. Moreover, the employment status also has a role in social positioning of a person. All these things have a profound bearing on the overall mental health of that person. Thus, as is observed in the study the relative impact of employment status is greater than the disability profile of an individual.

CONCLUSION

We can conclude that the finding of the study shows the positive impact of being employed on certain aspects of mental health such as depression, anxiety, stress and self-esteem. It was also observed that self-esteem and depression was more prevalent for those with physical disability than those without it. Gender did

not have any specific impact on mental health, however at the disaggregated level both male and females irrespective of their disability showed a robust positive association of mental health with being employed.

Thus, it can be concluded that gainful employment not only gives a person certain tangible benefits but also creates a social status and has a profound impact on the psyche of an individual. In comparison to those who are not physically disabled, those with some kind of physical disability, employment has manifold impact. As can be seen that the physically disabled's scores for self esteem and depression are worse off than their not-disabled counterpart. Focusing more on promoting creative employment opportunities for the disabled will not only directly impact their general well-being intrinsically, but also impact of the negative self-image and societal discrimination could be countered thereby significant gain can be expected in self-esteem and enhanced mental health of the person. Making our society more inclusive will translate into general increase in the welfare and mainstreaming of marginal and vulnerable groups.

The drawback of the study was that it was confined to lower and middle income employed people. However, for the better understanding of the discrimination or non-inclusivity of our society towards physical disability people from diverse background could be considered.

ACKNOWLEDGMENT

The author sincerely acknowledges the student volunteers who collected the data and all the participants who voluntarily participated, without whom the study won't have been possible.

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