

## **Labor and Mental Health: Social Determinants Effecting Mental Health of Working Schooled and Non-Schooled Adolescents**

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The complex socio-cultural attribution and economics exploitation make Pakistan an especial ground for assessing mental health problems in working adolescents. Adolescents who are working and acquiring knowledge at the same time begs a need for current survey to reconnoiter the effects of social determinants on mental health. The purposive sampling technique was used to select the sample comprised of 120 adolescents (60 working schooled adolescents and 60 working non-schooled adolescents) in equal gender dissemination with the age range of 12 to 18 years ( $M = 15.11$ ,  $SD = 1.87$ ). Urdu translated version of Mental Health Inventory (MHI-38) (Khan et al., 2015) was used to collect the data. From the interpretation of statistical analysis, the results signified that the psychological wellbeing of working schooled adolescents was positively associated with acquiring education, hazard free occupation, younger working age and higher wages; while psychological distress was accompanied with extensive working hours, larger family size and low socioeconomic status. Conversely, psychological wellbeing of working non-schooled adolescents was associated with less working hours while psychological distress was associated with working at younger age, hardest occupation, low wages and larger family size. Result also showed social determinants including education, working hours, working age, family size and socioeconomic status as prominent predictors of mental health with 81% of variance in psychological wellbeing and 80% of variance in psychological distress. This study will provide practical ways to address the psychological and behavioral problems incorporating in late adolescents.

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Education and schooling played a significant role in the progress and deterioration of the development of adolescents and is the responsibility of country and provinces to provide the education to all (Khan et al., 2015). Because of shortage of funds, economy conditions and fewer resources in Pakistan, poorer families are left with only option to send their youngsters to markets for working instead of sending them to the schools. Their parents obligate them to work and earn to support themselves and their family in order to meet basic needs. Those young workers referred as working adolescents (Eryilmaz, 2020). Jilani (2009) also defined working adolescents as those who started working at early age to support their parents or family by running errands, had employment in working areas and doing domestic chores regardless of harmful and hazard exertion (Khan, 2008).

Holistic Child labor was differentiated from working adolescents in terms of engaging in exploitive / hazard working and the work that divests a child from his childhood (International Labour Organization, 2018; Edmonds, 2007). According to the International Labour Organization (ILO) (1973) resolution no. 138, onward 12 years of age any work which do not affect the education of the adolescent is acceptable regardless of ramification (Norpoth et al., 2014). In accordance with Erikson (1965) adolescents' transitional phase from 12 to 18 years emphasized upon variations in individuality and development of mental health growth. Upshots generated from this phase are significant because of legitimate concern on wellbeing and entering in workforce. Therefore, adolescents working in this phase tried to cope with the uncertainty, cast around survival and vulnerable to mental health problems (Thompson & Gomez, 2014).

Working in the stage of adolescence has multifold impact on growth that would be either positive or negative more specifically with the element of education (Butt, 2009; Ibrahim et al., 2019). For working adolescents attending school, education served as supportive and surviving component to cope and deal with the adversity and uncertainty (Anjum, 2015). Conversely, working adolescents not attending school are more prone to negative mental health symptoms that incorporates in late adolescents and had adverse impact on our society (Edmonds & Pavcnik, 2005).

UNICEF (2008) differentiated working schooled adolescents and working non-schooled adolescents with basic hazards in major domains i.e., physical, psychological and social that comprises the

starting age of working, hours spending at working, work environments, low wages and interference with schooling and education.

Working in young age not only cause mental health problems but also deprived the adolescents from growth, fundamental rights of education and freedom (Abid et al., 2021). Furthermore, many preceding conceptualizations stated that mental health problems are associated with the major psychological disorders later in adulthood (Pine et al., 1999).

A study extracted from previous research conducted by Ray (2000) using data from developing and low socio-economic countries Peru and Pakistan evident the notion that there is a positive correlation between adolescents working for long hours and poverty, while there is negative correlation between schooling of working adolescents and poverty. Auspiciously, only Pakistani data support these hypothetical confirmations but not by Peruvian data.

Alongside, another prominent research was conducted in Pakistan to found out the prevalence of mental health problems in working and non-working adolescents with a total number of 200 adolescents from 11 to 18 years of age range. Results from the analysis concluded that working adolescents experienced more mental health problems (depression, anxiety and stress) as compared with non-working adolescents (Niaz et al., 2020).

Through a database collection from narrative review assimilating many researches together; it was concluded that working itself not have that adverse effect rather conditions related to working has strong negative impact on adolescent's mental health and development such as gender discrimination (Emerson & Souza, 2007), extensive working hours (Park et al., 2020), size of family (Grinde & Tambs, 2016) and low socioeconomic status (Gharaibeh & Hoeman, 2003) directly related with the consequences of psychological distress.

The prevailing recent study supports the notion by identifying the psychosocial causes as predictor of mental health problems among adolescents. The data was collected from the sample of 3,332 young workers of age range 12-20 years old acquiring education. Demographic variables such as level of education, gender, age, marital status and working hours was adjusted to predict the level of stress, depression and suicidal thoughts associated with working hours. Results concluded that stress increase with extensive working hours with respect to age interferes with psychological wellbeing of adolescents (Park et al., 2020).

Along with the cons of working effects, some researchers also showed benefits of working during adolescence. The theoretical consumption was confirmed through the results of a research that adolescents working in young age without schooling are associated with lowest adult earning before the age of 12 years partially because of trade-off educational attainment. But after the age of 12 and more, working appears to had change and favorable outcomes but have consisted of many underlying problems (Emerson & Souza, 2007). Additionally, it was concluded from the literature that adolescents retaining their position at early age in market have positive consequences of getting benefits in adulthood (Danziger & Ratner, 2010).

By keeping cross-cultural differences and religious inclined society, results would not be generalized from western researches. Therefore, some of the researches were quote to verify the intent of present study. Population based epidemiological studies showed high prevalence rate of mental health problems in Pakistan among adolescents. For instance, a study conducted by Javed et al. (1992) showed ratio of 9.3% generality of mental health problems from Lahore in school adolescents. While study conducted by Mumford et al. (2000) showed that mental health problems were common in school adolescents but provenly high in working adolescents in Rawalpindi, Pakistan. The ratio of female was twice as compared to males. Additionally, a study from Karachi targeting working adolescents aged 11-16 years showed higher prevalence rate of behavioral problems, peer problems and conduct problems with respect to adverse family and work environment (Bandeali et al., 2008).

Researches on the association between adolescent employment, optimal benefits and negative ramifications on mental health among working/non-working adolescents and young schooled workers have reported mixed results and remain under considerations. There was considerable amount of literature directed toward the precipitating and protective factors of mental health in working adolescents (Emerson & Souza, 2000). But there was scarcity of researches on those working adolescents who kept on their educational attainment along with working to gain an optimum position in the society and face many un-catered psychological problems. Absence of perception regarding psychological challenges faced by working adolescents, shortage of educational facilities, training and treatment modalities for intensifying negative mental health symptoms and cultural differences created a ground for this study in Pakistan for the identification and prevention of mental health problems.

## Objectives

Adolescents who are working and acquiring knowledge at the same time beg a need for a current survey to reconnoiter the effects of social determinants of working on the mental health of working schooled and non-schooled adolescents.

## Hypotheses

1. There would be a significant relationship between social determinants of working and mental health in working schooled and non-schooled adolescents.
2. The mental health of working schooled individuals will be higher compared to non-schooled individuals.

## Method

### Research Design

In the current study, comparative research design was used to compare the working schooled adolescents and working non-schooled adolescents on the basis of social determinants of working.

### Sample

The non-probability purposive sampling technique was used to select the sample. The sample comprised of 120 adolescents were further divided into 60 working schooled adolescents ( $n = 30$  male and  $n = 30$  female) and 60 working non-schooled adolescents ( $n = 30$  male and  $n = 30$  female) were taken for the participation in the current study. The age range of both sample participants taken were between 12 to 18 years ( $M = 15.11$ ,  $SD = 1.87$ ). Moreover, non-working schooled adolescents were not taken as participants in the current study. However, working schooled adolescents were taken on the basis of education along with current employment from foundations, organization and educational institutes of Faisalabad. Whereas, working non-schooled adolescents were taken from cloth markets, workshops, tea shops, hotels, elite societal areas and other different working areas of Faisalabad. The selected working areas for both participants were regardless of ramification and hazard exertion (International Labour Organization, 1973; Jilani, 2009).

## Measures

### *Identification of Social Determinants*

Social determinants of working of the both participants were identified through appropriate and detailed information sheet consisted of age started working, occupation type, working environment, working hours, income/wages, schooling/education, birth order, number of siblings, family size, number of dependent family members, occupation of parents and socioeconomic status. Necessary analysis was also computed for these variables.

### *Mental Health Inventory-38 (Urdu Version)*

Mental Health Inventory developed by [Veit and Ware \(1983\)](#) translated in Urdu by [Khan et al. \(2015\)](#) comprised of 38 items was used to collect the data. Respondent uses 6-point Likert rating scale ranging from 1 (all of the time) to 6 (none of the time) while only two items 9 and 28 were rated on 5-point Likert scale ranging from 1 (very often) to 5 (none of the time) to measure statements. Mental Health Inventory-38 showed an adequate reliability and strong overall internal consistency reported .89 Cronbach alpha rating. The total subscale's Cronbach's alpha coefficient for psychological wellbeing was .74 comprised of 14 items and for psychological distress was .72 comprised of 24 items.

## Procedure

Primarily, the permission from original authors of the tools along with the authors of translated tools through e-mail were sought to use in the current research. Urdu translated measures were used for the convenience and understanding of the participants. Before conducting the research, permission was taken from all the concerned authorities of targeted adolescents. Written and Oral consent was taken from both the participants and concerned authority (parents, school administration, employers and chief market etc.).

Due to adolescents as the sample with less education and low socioeconomic status, the pilot study was conducted to confirm that either participants were understanding the tools or had facing difficulty during the procedure. For this purpose, a sample of 30 adolescents (15 working schooled and 15 working non-schooled) fulfilling the inclusion criteria was taken. Individual administration procedure was adopted. Results from pilot study showed an adequate reliability and strong overall internal consistency reported .83 for working schooled adolescents and .76 for working non-schooled adolescents.

For the main study, two different samples of 90 adolescents (45 working schooled and 45 working non-schooled) fulfilling the inclusion criteria were taken from different educational and working areas of Faisalabad. The administration of all the research measures was continuous and administered on each participant individually. The participants took 20-25 minutes to complete the whole process. The collected data was analyzed statistically. After the results, adolescents in need were dispersed for assistance and therapy for future purpose with the consent of their parents.

### *Ethical Consideration*

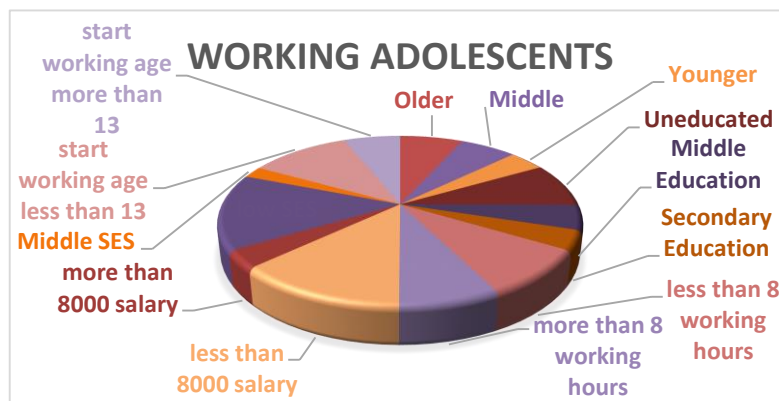
All the gathered data was kept confidential and the rights were reserved. Proper consent was taken from each participant and their concerned authorities in both oral and written form before proceeding. Due to inaccessibility to parents, consent was taken from concerned authorities (school administration, employers and chief market etc.) and participants with caution.

### **Results**

Inferential statistics computed the different statistical analysis for testing study hypotheses in which collected data was analyzed by using SPSS version 22. Suitable statistical analyses were Pearson product moment correlation, independent sample t-test and hierarchal multiple regression analysis with the aim of testing hypotheses.

**Figure 1**

*Demographic Characteristics of the Sample (N =120)*



This figure indicated the sample consisted of 50% of working schooled adolescents and 50% working non-schooled adolescents.

50% working schooled adolescents were educated from which 27.5% was of primary education and 22.5% was of secondary education. The 40% participants were older among their siblings, whereas 36.7% were middle one and 23.3% were younger according to their birth-order. The 45.8% participants spent maximum or less than 8 hours on working, whereas majority of the participants with 54.2% work for more than 8 hours a day. The 73.3% working adolescents started working from the age of 9-13 years, while 26.7% working adolescents started working from the age of 14-18 years of age range. Majority of the working adolescents 79.2% earn less than 8000 income while only 20.8% earn more than 8000. The 13.3% of participants belongs to middle socioeconomic status, while majority with 86.7% of participants belongs to low socioeconomic status.

**Table 1**

*Reliability Coefficients for the Urdu Translated Mental Health Inventory (N = 120)*

Scales	k	M	SD	$\alpha$	Range	
					Actual	Potential
MHI	38	122.81	20.50	.891	30-228	38-226
P Wellbeing	16	93.38	18.78	.739	14-84	20-96
P Distress	22	179.75	24.29	.721	24-142	20-130

*Note.*  $A$  = Cronbach's alpha reliability;  $k$  = No. of items on scale;  $M$  = Mean;  $SD$  = Standard Deviation,  $MHI$  = Mental Health Inventory;  $P$ . Wellbeing = Psychological Wellbeing;  $P$ . Distress = Psychological Distress.

Analysis from [Table 1](#) indicated the overall Cronbach's alpha reliability of MHI is ( $\alpha = .90$ ). The Cronbach's alpha reliability of global subscales of MHI Psychological distress was ( $\alpha = .74$ ) and Psychological Well-being was ( $\alpha = .72$ ).

The results signified that the higher level of psychological wellbeing was positively associated with favorable outcomes and higher level of education, type of occupation, working age and income while have significant negative association with gender, working hours, siblings and socio-economic status. Conversely, the higher level of psychological distress was associated with gender differences, higher working hours, more siblings and higher level of socioeconomic status while negatively associated with lower level of education, lower level of occupation, less age on first employment or working and low monthly income. Results also reported strong negative correlation among psychological wellbeing and distress which signified that lower level of Psychological Distress associated with higher level of Psychological Wellbeing and frequent manifestation of favorable outcomes of Mental Health.



**Table 2***Inter-Correlations Among Social Determinants and Mental Health (N = 120)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	-	.25**	.41**	.09	.71**	.37**	.20*	.38**	-.03	.07	-.37**	.16	-.09
2. Gender		-	-.88**	-.00	-.37**	.14	.39**	-.35**	.22*	.02	.41**	-.84**	.81**
3. Class			-	.28**	.48**	-.08	-.40**	.34**	-.26**	-.23	-.45**	.87**	-.83**
4. Occupation				-	.06	.03	-.12	.12	-.11	-.03	-.00	.20*	-.33**
5. Age Started Work					-	-.38**	.02	.51**	-.17	-.06	-.38**	.29**	-.23*
6. Work Duration						-	.24**	-.17	.19*	.17	-.00	-.15	.164
7. Working Hours							-	.07	.05	.04	.03	-.36**	.54**
8. Monthly Income								-	-.14	.10	-.40**	.22*	-.22*
9. No. of Siblings									-	-.00	.11	-.27**	.20*
10. Birth Order										-	-.08	-.02	.04
11. Socioeconomic											-	-.35**	.32**
12. P. Wellbeing												-	-.81**
13. P. Distress													-
<i>M</i>	15.1	2.42	4.30	4.79	13.13	1.98	2.51	2.48	4.26	1.83	1.87	46.9	89.88
<i>SD</i>	1.87	1.19	4.58	2.26	1.87	1.38	.79	1.17	1.36	.78	.34	9.39	12.15

Note. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; *M* = mean; *SD* = standard deviation; P. Wellbeing = Psychological Wellbeing; P. Distress = Psychological Distress.

**Table 3***Hierarchical Multiple Regression Analysis for Social Determinants as Predictor of Mental Health*

Variables	Psychological Wellbeing					Psychological Distress								
	B	95%CI for B		SE	$\beta$	R <sup>2</sup>	$\Delta R^2$	B	95%CI for B		SE	$\beta$	R <sup>2</sup>	$\Delta R^2$
		LL	UL						LL	UL				
Step 1						.126	.126*						.008	.008*
Constant	43.72***	28.71	58.74	7.58				85.68***	65.94	105.42	9.96			
Gender	-2.04**	-3.45	-0.63	0.71	-0.26**			1.28	-0.57	3.12	0.93	0.13		
Birth Order	0.31*	0.04	0.57	0.13	0.19*			-0.33	-0.68	0.01	0.17	-0.16		
Step 2						.810	.810***						.806	.806***
Constant	56.92***	46.89	66.95	5.06				71.30***	58.21	84.38	6.61			
Gender	-2.19**	-3.58	-0.79	0.70	-0.28**			1.44	-0.40	3.27	0.92	0.14		
Birth Order	0.30*	0.05	0.56	0.13	0.19*			-0.33	-0.68	0.01	0.17	-0.16		
Education	1.43***	1.05	1.82	0.19	0.70***			-1.90***	-2.40	-1.40	0.25	-0.72***		
Age work start	-0.73**	-1.22	-0.24	0.25	-0.15**			1.03**	0.39	1.66	0.32	0.16**		
Siblings	-0.41	-1.00	0.17	0.30	-0.06			0.04	-0.73	0.80	0.39	0.00		
SES	0.53	-2.06	3.11	1.30	0.02			-0.24	-3.61	3.14	1.70	-0.01		
Working Hour	-0.44	-1.53	0.64	0.55	-0.04			4.17***	2.75	5.58	0.71	0.27***		

Note. SES = Socioeconomic Status, CI = Confidence Interval, LL = Lower Limit, UP = Upper Limit, SE = Standard Error, B = Unstandardized Coefficient,  $\beta$  = Standardized Coefficient.

Table 3 showed the hierarchical multiple regression analysis which was aimed to test social determinants as the predictor of psychological wellbeing and psychological distress respectively. Demographics were entered in the first step, explaining 12% of the variance in psychological wellbeing and 8% of the variance in psychological distress. After adding the social determinants at step 2, the total variance explained by the model was 81% for psychological wellbeing and 80% for psychological distress. The social determinants explained an additional .81% and .80% variance in psychological wellbeing and psychological distress correspondingly. Results showed that social determinants associated with working during adolescents had higher variance on mental health which depicted that social determinants played an important role in anticipating mental health problems in working adolescents.

**Table 4**

*Independent Sample t-test Between Working Schooled and Working Non-Schooled Adolescents for Mental Health (N = 120)*

Variables	Working Schooled Adolescents		Working Non-Schooled Adolescents		<i>t</i> (118)	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
P. Wellbeing	55.43	3.06	37.95	3.61	28.5	.000	5.26
P. Distress	79.01	6.26	100.73	4.29	-22.1	.000	4.32

*Note.* *M* = Mean; *SD* = Standard Deviation; *P. Wellbeing* = Psychological Wellbeing; *P. Distress* = Psychological Distress.

Table 4 showed significant difference ( $p < .001$ ) in psychological wellbeing between working schooled adolescents ( $M = 55.43$ ,  $SD = 3.07$ ) and working non-schooled adolescents ( $M = 37.95$ ,  $SD = 3.61$ ). This depicted that working schooled adolescents were more optimistic, cheerful and have favorable mental health outcomes. Results also indicated the significant difference ( $p < .001$ ) in psychological distress between working schooled adolescents ( $M = 55.43$ ,  $SD = 3.07$ ) and working non-schooled adolescents ( $M = 37.95$ ,  $SD = 3.61$ ). This showed that working non-schooled adolescents were more prone to psychological distress and has frequent manifestation of negative mental health symptoms.

## Discussion

The current study intended to explore the social determinant affecting mental health of working adolescents. For the purpose of identifying inter-correlations, and to find out the predictors to mental

health and differences among working schooled and non-schooled adolescents; different statistical analysis was computed for generating results. The findings of the study have provided a wide range of insights into the impact of social determinants on the development of mental health problems (psychological wellbeing and psychological distress) in working adolescents. Primarily, it was found that the significant inter-correlations among social determinants and mental health were evident in the current study. Extensive working hours, family size and low socio-economic status showed significant positive relationship with psychological distress in working adolescents (schooled and non-schooled). Results were consistent with previous study conducted by [Al-Gamal et al. \(2013\)](#) reported that working itself not have that adverse effect rather conditions related to working has strong negative impact on adolescent's mental health and development such as extensive working hours ([Zafar et al., 2016](#)), size of family ([Grinde & Tambs, 2016](#)) and low socioeconomic status ([Gharaibeh & Hoeman, 2003](#)) directly related with the consequences of psychological distress.

Moreover, education, innocuous type of occupation, age started working and attractive monthly income relevance to work showed significant positive relationship with psychological wellbeing in working adolescents (schooled and non-schooled). This may be because education served as a surviving and coping component in working adolescents. Another study conducted by [Ray \(2000\)](#) evident with the result findings that education of adolescents while in working phase played a central role in improving welfare and coping that have positive significant relationship with the level of education. Adolescents retaining their position at early age in market have positive consequences of getting benefits in adulthood. Favorable income from employment also enhances motivation with success significance. Prior research signified that higher level of psychological wellbeing of young workers ([Emerson & Souza, 2011](#)), associated with higher level of education ([Dorman, 2008](#)) and favorable type of occupation with promising working wages ([Aufseeser & Bourdillon, 2018](#)).

The strong significant association among social determinants and mental health (psychological wellbeing and psychological distress) was may be identified because social determinants such as working hours or starting age of working etc., had an impactful influence over working adolescent's mental health. Extensive hours of working may be associated with fatigue, physical exertion or mental exhaustion. Similarly, started working in school ages also contributes to the growth of mental health ([Ray, 2000](#)).

The significant difference among working schooled adolescents and working non-schooled adolescents from the results were also consistent with some latest researches. [Matud et al. \(2019\)](#) concluded in latest research that male and female with higher qualification along with higher employment level will have more psychological wellbeing than less qualified workers. [Matthews et al. \(2001\)](#) concluded that explanation work factors differ for full time and part-time young workers. Education may be served as coping adaptability to deal with stressors while working without education develop maladaptive skills and subsequently cause psychological distress. The insight developed from study results provided a basis and guidelines for Clinicians to manage the adolescents in need more appropriately in dealing with their mental health problems incorporating in late adulthood.

### **Limitations**

Because the child laboring is illegal and working in young age is restricted by laws, people are afraid, so they do not easily allow collecting information and meeting the young workers. Specifically, it happens with the domestic workers whose employers are literate and know the laws. Other limitation was that the sample size was small and was not rich in diversity. So, the generalizability is low. A major limitation was that diversity in the type of occupation was not controlled in this study. Type of occupation would have a strong impact on mental health of the adolescents. Moreover, individual administration consumes much time and exertion.

### **Implications**

The present study has an implication to provide the basis of the solution for those problems which could be arise from labor, working at younger age and working interference with education. Empirical and clinical work of this study provided practical ways to address the psychological and behavioral problems incorporating in late adolescents. Furthermore, findings helped the Clinician to make effective strategies for two different sample regarding management to overcome mental health problems.

### **Recommendations**

Indigenous scales in the native language of the student should be developed with respect to their besieged problem, age and understanding. Clinical Psychologists should counsel these little

laborers free of cost to make them feel happy. Help them to manage their stress and other behavioral problems that might create hindrance in their psychological growth.

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