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Mental health characteristics of re-entering dropout Indian students

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Abstract:

Education plays a pivotal role in shaping individual development and societal progress, yet dropout rates remain a significant challenge, particularly in developing countries like India. Dropout decisions often stem from complex social, economic, and

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psychological factors, impacting students' mental health. This comparative descriptive study assessed and compared the mental health characteristics of 30 re-entering dropout students and 30 regular students from Integral Coach Factory (ICF) Hr. Sec. School, Ayanavaram, Chennai. Data collection utilized a structured questionnaire capturing demographic variables and the modified Abraham and Prasanna Mental Health Characteristics Scale. Re-entering dropout students exhibited lower mental health scores across physical, intellectual, familial, social, and psychological dimensions compared to regular students (p < 0.001). Significant associations were observed between mental health and father's education level among re-entering dropout students and their peers, highlighting the need for targeted interventions and supportive environments in educational settings. Addressing these disparities can enhance overall well-being and academic success among re-entering dropout students.

Keywords: dropout, re-entering students, mental health, educational settings.

Background:

Education is fundamental to individual development and societal progress, shaping the future of young generations worldwide. However, the journey through education is not always smooth, particularly for a significant proportion of students who experience disruptions such as dropping out of school. 1] The phenomenon of dropout rates among students, especially in the context of developing countries like India, poses substantial challenges to educational systems and societal wellbeing. Globally, dropout rates among school-aged children present a pressing issue. [2] In India a study cross-sectional community-based study in Raipur, Chhattisgarh, found 11% scholastic dropouts among adolescents. While, poor academic performance is another determining factor [3]. These figures underscore a critical need to delve deeper into the factors contributing to school dropout and the subsequent implications for mental health. The decision to drop out of school often reflects underlying social, economic, and psychological challenges faced by students and their families. [4] Studies have consistently linked school dropout to increased risks of mental health issues such as emotional disturbances, behavioural disorders (e.g., conduct disorder, attention deficit hyperactivity disorder), and overall compromised well-being. [5-6] Therefore, it is of interest to report the mental health dynamics of reentering dropout students is crucial for fostering inclusive and supportive educational environments.

Methodology:

Study design:

This study employed a comparative descriptive design [7] to assess and compare the mental health characteristics of reentering dropout students and regular students in UDAVI, Chennai, India.

Participants:

The study employed purposive sampling to select 30 re-entering dropout students and 30 regular students from Integral Coach Factory (ICF) Hr. Sec. School, Ayanavaram, Chennai, TN, India. The study included 30 re-entering dropout students and 30 regular students who met the following inclusive criteria:

- [1] Ability to read and write in Tamil and English.
- [2] Attendance at Integral Coach Factory (ICF) Hr. Sec. School, Ayanavaram, Chennai.

Exclusion criteria involved re-entering dropout students with diagnosed psychiatric illnesses, ensuring that participants did not have pre-existing conditions that could confound the study outcomes.

Setting:

Data collection took place at Integral Coach Factory (ICF) Hr. Sec. School, Ayanavaram, Chennai, providing a suitable environment familiar to both groups of participants.

Instrumentation:

Section A:

Demographic variables

A structured questionnaire was used to gather demographic information

Section B:

Modified Abraham and Prasanna mental health characteristics scale

The primary instrument used to assess mental health characteristics was a modified version of the Abraham and Prasanna Mental Health Characteristics Scale (1978), developed at the Department of Education, University of Kerala. This scale, originally comprising 80 items across 16 sections

Data collection procedure:

Data collection occurred over a specified period, during which trained researchers administered the questionnaire and mental health scale to participants. The process ensured consistency and reliability in data collection across both groups.

Data analysis:

Both descriptive and inferential statistical analyses were employed to analyze the data.

Ethical considerations:

The study adhered to ethical guidelines, ensuring voluntary participation, confidentiality, and anonymity of participants. Informed consent was obtained from all participants or their legal guardians, and ethical approval was obtained from the relevant institutional review board. Bioinformation 20(9): 1034-1037 (2024)

Table.1 Characteristics of Re-entering Dropout Students and Regular Students

Demographic	Re-entering Dropout	ut Regular		
Variables	Students (n=30)	Students (n=30)		
Age				
10-12 years	12 (40.0%)	-		
13-15 years	16 (53.3%)	22 (73.3%)		
Above 16 years	2 (6.7%)	8 (26.7%)		
Sex				
Male	15 (50.0%)	15 (50.0%)		
Female	15 (50.0%)	15 (50.0%)		
Class		· /		
5th standard	10 (33.3%)	9 (30.0%)		
6th standard	7 (23.3%)	8 (26.7%)		
7th standard	2 (6.7%)	8 (26.7%)		
8th standard	11 (36.7%)	5 (16.7%)		
Religion	. ,	· /		
Hindu	14 (46.7%)	7 (23.3%)		
Christian	9 (30.0%)	14 (46.7%)		
Muslim	7 (23.3%)	9 (30.0%)		
Others	-	-		
Father's Education				
Illiterate	14 (46.7%)	7 (23.3%)		
Primary	9 (30.0%)	14 (46.7%)		
Secondary	7 (23.3%)	9 (30.0%)		
Mother's Education		· /		
Illiterate	13 (43.3%)	8 (26.7%)		
Primary	10 (33.3%)	19 (63.3%)		
Secondary	7 (23.3%)	3 (10.0%)		
Type of Family				
Nuclear	21 (70.0%)	21 (70.0%)		
Joint Family	9 (30.0%)	9 (30.0%)		
Living Status of Parents				
Staying Together	25 (83.3%)	29 (96.7%)		
Separated	5 (16.7%)	-		
Widow/Widower	-	1 (3.3%)		
Caretaker (or) Guardian				
Parents	29 (96.7%)	27 (90.0%)		
Hostel Warden	-	2 (6.7%)		
Relatives	1 (3.3%)	1 (3.3%)		
Family Income (Rs/month)				
Rs. 500-1000	1 (3.3%)	-		
Rs. 1001-3000	23 (76.7%)	18 (60.0%)		
Rs. 3001-5000	4 (13.3%)	7 (23.3%)		
Rs. 5000 above	2 (6.7%)	5 (16.7%)		
Number of Siblings		- (
One	1 (3.3%)	9 (30.0%)		
Two	23 (76.7%)	11 (36.7%)		
Three	4 (13.3%)	6 (20.0%)		
Four and above	2 (6.7%)	2 (6.7%)		
Nil	-	1 (3.3%)		
Order of Birth	- ()			
First	7 (23.3%)	13 (43.3%)		
Second	12 (40.0%)	8 (26.7%)		
Third	4 (13.3%)	6 (20.0%)		
Fourth	7 (23.3%)	3 (10.0%)		

 Table 2: Comparison of mean and S.D of mental health between the re-entering dropout students and regular students

Dimensions		Re-entering dropout		Regular		't' value
		students		students		
		Mean	S.D	Mean	S.D	
1.	Physical	12.97	1.87	10.23	1.1	6.90*** (S)
2.	Intellectual	12.13	2.03	9.37	2.01	5.30*** (S)
3.	Familial	11.77	1.25	9.97	1.13	5.85*** (S)
4.	Social	12.97	2.25	10.37	0.89	5.89*** (S)
5.	Psychological	12.3	2.18	9.87	1.46	5.07*** (S)
Ov	erall	49.8	3.6	62.13	6.45	9.133***(S)

Results:

Associations between mental health characteristics and demographic variables among re-entering dropout students

(Table 6) and regular students is given (Table 7). For re-entering dropouts, significant correlations were found between mental health and father's education ($\chi 2 = 22.26$, df = 2, p < 0.001), as well as with order of birth ($\chi 2 = 9.76$, df = 3, p < 0.05), close friends ($\chi 2 = 12.47$, df = 3, p < 0.01), and mass media exposure ($\chi 2 = 9.25$, df = 2, p < 0.05). However, variables such as age, sex, class, and religion showed no significant associations. Among regular students, only order of birth exhibited a mild significant association with mental health ($\chi 2 = 7.86$, df = 3, p < 0.05), while other demographic factors including age, sex, class, religion, and parental education did not show significant correlations.



Figure 1: Comparison of Mental status dimension among reentering dropout students and regular students

Discussion:

The present study aimed to explore and compare the mental health characteristics of re-entering dropout students and regular students in UDAVI, Chennai, India. In our study, reentering dropout students predominantly exhibited an average level of mental health across various dimensions-physical, intellectual, familial, social, and psychological. This finding aligns with the study conducted by Wainipitapong et al. (2022), which also reported similar levels of poor to average mental health among re-entering students. [8] However, in contrast to our findings, the study by Hjorth CF et al. (2016) found a higher prevalence of inadequate mental health levels among re-entering students, suggesting varying degrees of mental health challenges upon returning to education. [9] In the present study, the data indicate that the majority of regular students exhibit adequate to good mental health, consistent with findings from studies conducted by Siddique et al. (2022) and Pedrelli et al. (2015) [10,11] Our study highlighted significant differences in mental health levels between re-entering dropout students and their regular counterparts. Re-entering dropout students consistently showed lower mental health scores across all measured dimensions compared to regular students. This pattern is consistent with findings from the study by Del Savio et al. (Year), which also noted disparities in mental health between dropout students re-entering education and their peers who remained in school without interruption. These consistent findings underscore the robustness of the impact of dropout experiences on subsequent mental health outcomes. [12] The association ISSN 0973-2063 (online) 0973-8894 (print)

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analysis in our study revealed a significant link between father's education level and mental health outcomes among re-entering dropout students. This finding aligns with the research conducted by Fakhrunnisak et al. (2022), which similarly identified parental education as a significant factor influencing mental health among adolescents and young adults. [13] However, unlike Varsha V et al (2023) and Lindhardt et al.'s (2022) findings, we did not observe significant associations between mental health and demographic variables such as age, sex, class, and religion among re-entering dropout students. These contrasting results suggest potential contextual variations that warrant further investigation in future studies. [14, 15] Despite the contributions of our study, limitations such as sample size and geographical specificity should be considered. Future research could expand on these findings by incorporating larger and more diverse samples, as well as exploring additional demographic and contextual factors that may influence mental health outcomes among re-entering dropout students. In conclusion, our study contributes valuable insights into the mental health characteristics of re-entering dropout students compared to regular students. By drawing comparisons with findings from multiple studies, we underscore the need for tailored interventions and support mechanisms to address mental health disparities and enhance overall well-being among re-entering dropout students in educational settings.

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References:

- [1] Pulimeno M *et al. Health Promot Perspect.* 2020 **10**:316 [PMID: 33312927]
- [2] Kumar P et al. PLoS One. 2023 18:e0282468 [PMID: 36862641]
- [3] Minz AM *et al. Int J Res Med Sci.* 2015 3:1372 [DOI:10.18203/2320-6012.ijrms20150150]
- [4] Porche MV et al. Child Dev. 2011 82:982 [PMID: 21410919]
- [5] Andersen S *et al. BMC Psychol.* 2021 18:122 [PMID: 34407891]
- [6] Dupéré V *et al.* J *Adolesc Health.* 2018 62:205 [PMID: 29195763]
- [7] Sivasubramanian N et al. Bioinformation 2022 18:786 [PMID: 37426510]
- [8] Hjorth CF *et al. BMC Public Health.* 2016 **16**:976 [PMID: 27627885]
- [9] Wainipitapong S & Chiddaycha M. BMC Med Educ. 2022
 22:461 [PMID: 35710367]
- [10] Siddique MAB *et al. Heliyon.* 2022 **8**:e11084 [PMID: 36303905]
- [11] Pedrelli P et al. Acad Psychiatry. 2015 39:503 [PMID: 25142250]
- [12] Del Savio AA et al. Heliyon. 2022 8:e09504 [PMID: 35663741]
- [13] Fakhrunnisak D & Patria B. *BMC Public Health*. 2022 22:949 [PMID: 35549703].
- [14] Varsha V et al. Indian J Public Health Res Dev. 2023 14:380 [http://dx.doi.org/10.37506/ijphrd.v14i3.19434]
- [15] Lindhardt L et al. Scand J Public Health. 2022 50:1164 [PMID: 35441561]