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Effects of Outcome based Education on children's Psychological Well-Being

Shampa Paria and Raj Kishore Pathak

Department of Education, Mansarovar Global University, Billkisganj, Sehore, Madhya Pradesh, India.

ABSTRACT

Education in developing countries, particularly India, plays a crucial role in economic growth. This study highlights the need for India's tertiary education system to transition from a teacher-centered approach to an outcome-based framework, emphasizing student learning outcomes. A review of multiple databases, including Cochrane and Medline, identified five key factors affecting learning outcomes: assessment methods, complexity of learning objectives, student learning styles, English proficiency, and employer expectations. It discusses the impact of SMH initiatives, the need to address underserved student populations, and interdisciplinary collaborations. The study concludes with recommendations for improving education and mental health services to enhance student success and well-being. This study examines the impact of education on children's mental health, focusing on outcome-based education (OBE) in India. Using primary data analysis, the study explores factors such as commitment to sports activities and time spent on them, with data gathered from over 100 college athletes and professionals in the sports industry. Statistical methods, including correlation, regression, and model fitness analysis, were applied using PLS software, revealing a strong correlation between business professionals' and university students' sports commitments.

Keywords: Outcome-based education, school mental health, student learning outcomes, mental well-being, higher education, stress, depression, social adjustment.

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INTRODUCTION

Education plays a crucial role in shaping the cognitive, emotional, and social development of children. Over the years, various pedagogical approaches have been introduced to enhance learning outcomes, one of which is OBE or Outcome-Based Education (Ogoemeka, 2012). OBE is a student-centered approach that focuses on clearly defined learning outcomes and competencies rather than traditional content-driven instruction. This system emphasizes measurable skills and abilities, ensuring that students achieve specific academic and life competencies before progressing further in their educational journey. While OBE aims to improve student performance and readiness for future challenges, its influence on children's mental health remains a critical area of discussion (Pargaonkar, 2012).

Children today experience significant academic pressure due to the structured nature of OBE, which demands continuous assessments, performance evaluations, and achievement of predetermined learning objectives. The emphasis on outcomes may lead to increased stress, anxiety, and reduced creativity among students, particularly those struggling to meet the expected standards. Furthermore, the comparative evaluation inherent in OBE may contribute to self-esteem issues, as children often measure their success against their peers (García-Carrión et al., 2019).

Despite these concerns, OBE also has potential benefits for children's mental well-being. By providing clear learning objectives and fostering self-paced learning, it can instill confidence, enhance motivation, and improve self-regulation. Additionally, OBE encourages the development of critical thinking and problem-solving skills, which can contribute to a sense of accomplishment and personal growth among students. The extent of its impact on mental health, however, depends on how the system is implemented, the level of support provided by educators and parents, and the balance maintained between academic expectations and holistic child development (Rusmin et al., 2024).

1. Outcome-Based Education (OBE): a method of instruction that places more emphasis on students demonstrating their mastery of particular learning outcomes than on knowledge acquisition or course completion. The focus of OBE is on helping students develop practical skills and competences

that will be useful in their future employment.

2. Mental health: The term "mental health" combines the words "mental" and "health." The term "mental" describes the ability of the human mind to think or reason (Pachaiyappan and Arumugam, 2017). Depending on the context and other words used, different people will interpret the word "health" differently. "Healthy or proper functioning of the mind" is the straightforward definition of mental health.

In this sense, "mental health" refers to both the absence of mental problems and physical, emotional, and social well-being. This idea has to do with the capacity to lead an active, perfect, and adaptable life in the face of obstacles and challenges in life. Everyone wants to be psychologically well, but students especially want to be in good mental health.

3. Social adjustment: The words "adjustment," "accommodation," and "adaptation" are frequently used synonymously. The phrase specifically refers to the equilibrium outcomes that any one or both of these processes have the potential to impact. It emphasises how difficult it can be for someone to get by or survive in their physical and social environment.

In this context, social adjustment is understood to be compliance with social standards at home, school, and in society as a whole, as well as amicable relationships amongst peer groups. People need to develop social skills and behaviours in order to be socially adjusted. Additionally, it calls for having the social skills necessary to interact with other human groups as well as a sense of responsibility and loyalty to one's community, society, and country.

4. Competencies: The unique knowledge and abilities needed to succeed in each field, such as a job or academic subject. Technical abilities, communication abilities, critical thinking abilities, and interpersonal abilities are examples of competencies.

5. Self-esteem: The extent to which a person has high self-esteem and confidence in their talents. Self-esteem can be assessed using self-report tools, and it can be influenced by a wide range of things, such as social support, prior experiences, and success.

6. Stress: A condition of psychological and physical alertness brought on by a sense of danger or difficulty. Self-report assessments, physiological markers (such heart rate or cortisol levels), and behavioural observations can all be used to quantify stress.

7. Academic Achievement: The degree to which a student has learned the skills and information necessary for success in school, as determined by grades, test results, and other academic evaluations.

PSYCHOLOGICAL IMPLICATIONS OF OUTCOME-BASED EDUCATION

Increased Stress and Anxiety

The structured nature of OBE, which emphasizes performance and outcome-based assessments, can contribute to heightened stress levels in children. Continuous evaluations and strict learning targets may create pressure, leading to anxiety and burnout, especially in students who struggle to keep up with academic expectations (Pal, 1985).

Impact on Self-Esteem and Confidence

Since OBE often involves comparative assessments, students may develop self-esteem issues when they fail to meet the expected outcomes. Those who consistently perform below the required standard may experience feelings of inadequacy and a diminished sense of self-worth, potentially leading to long-term emotional challenges.

Enhancement of Motivation and Self-Regulation

On the positive side, OBE provides students with clear learning objectives, allowing them to track their progress and develop self-motivation. The system encourages self-regulated learning, enabling children to take responsibility for their academic growth and develop resilience in overcoming challenges.

Balancing Academic Expectations and Mental Well-Being

To mitigate the negative effects of OBE on children's mental health, educators and policymakers should focus on:

- **Flexible Assessment Methods:** Incorporating a mix of qualitative and quantitative assessments can reduce undue pressure and allow diverse learning styles to be recognized.
- Holistic Development Approaches: Including extracurricular activities, mindfulness training, and emotional support programs can help children manage stress and build resilience.
- **Parental and Teacher Support:** Encouraging an open dialogue between students, parents, and teachers can create a supportive learning environment that prioritizes mental well-being alongside academic achievement.

LITERATURE REVIEW

The issue of schoolchildren's declining mental health is one that is hotly contested. Two recent systematic reviews were conducted in Sweden. One is a systematic review of the international literature on the connection between education, learning, and mental health, while the other is a one-dimensional trend analysis of mental health issues among children and adolescents in Sweden from 1945 to 2009 (Petersen, et al., 2010).

The trend study is unable to prove that children's and teenagers' mental health has gotten worse over the past few decades due to a lack of information available prior to 1970 and concerns regarding the reliability of the studies' conclusions. The results demonstrate a negative trend, with a rise in internalise issues among female adolescents from 1980 to the present. (Petersen et al., 2010).

A lack of research has been done on the connection between education, learning, and mental health, especially at the organisational level. The review found that girls with academic achievement issues are more likely to develop internalising mental health problems, that the transition to secondary school has a positive impact on mental health, and that problems with academic achievement and mental health persist over time. It also found that early school failure increases the likelihood of later mental health problems. Mara Westling Allodi reviews the research on qualitative accounts of children's views of mental health and education in Gustafsson et al. (2010), They define mental health as a variety of positive and unpleasant emotions that are not usually connected to illness. Having supportive environments where people interact, participating in worthwhile and creative activities, and feeling engaged and comfortable are all protective school components. Risk Three factors, including academic difficulties that lead to alienation, aggressiveness, or coping, as well as perceived stress brought on by performance pressure, a poor teacher-student connection, and an excessive degree of freedom to choose, all contribute to "the sense of failure." The latter describes a more individualistic culture in which the optimal choice must be made in light of pertinent information and appropriate comprehension

SMH research differs from the broader body of literature in several elements of child clinical and preventative science outside of the intervention context. This review of the literature looks at the connection between college students' academic success and mental health. According to the authors, interventions to promote mental health can result in better academic outcomes because poor mental health is linked to worse academic performance (Zhang et al., 2024).

"A Systematic Review of the Relationship Between Education and Mental Health in Adolescents" According to Maiorano et al. (2021), this literature review systematically examines studies on the connection between adolescent mental health and schooling. The authors discover that higher levels of education are linked to improved mental health outcomes, such as reduced levels of substance abuse, depression, and anxiety (Richter et al., 2022).

Contemporary researchers investigate the effects of school-based mental health interventions on behavioural and academic outcomes and find that these interventions can result in better behavioural and mental health outcomes, as well as better academic outcomes, including greater attendance and higher grades (Worsley et al., 2022). Several researchers discover that educational interventions, such as cognitive-behavioral therapy and mindfulness training, can result in better mental health outcomes, including less symptoms of anxiety and sadness (Putwain and Embse, 2021).

A review of the literature on "The Association Between Education and Mental Health" The literature review by Baiden et al. (2019) examines studies on the relationship between mental health and education across the lifetime. According to the authors, higher levels of education are linked to better mental health outcomes, such as a lower likelihood of developing depression or anxiety or losing cognitive function later in life.

MATERIAL AND METHODS

The research methodology outlines the approach, design, and techniques employed in conducting this study. This section details the research paradigm, data collection methods, sampling techniques, and analytical tools used to achieve the research objectives.

Research Design This study adopts a mixed-method approach, integrating both qualitative and quantitative methods. A descriptive research design is employed to analyze the various aspects of the study, providing an in-depth understanding of the subject matter.

Research Approach The research follows an inductive approach, enabling the identification of patterns and relationships within the data. This approach facilitates the generation of new insights and theories based on empirical observations.

Data Collection Methods

Primary Data

• **Surveys and Questionnaires:** Structured questionnaires are used to collect quantitative data from respondents.

- **Interviews:** Semi-structured interviews with key stakeholders provide qualitative insights into the study.
- Focus Group Discussions: Groups of participants discuss relevant issues, offering diverse perspectives.

Secondary Data

- Literature Review: Existing studies, books, and journal articles form the basis for theoretical insights.
- **Reports and Databases:** Official reports, government publications, and industry databases supplement primary data.

Sampling Techniques

- **Population:** The target population comprises individuals or organizations relevant to the study.
- **Sampling Method:** A stratified random sampling technique ensures representation across different segments.
- **Sample Size:** A total of 550 respondents are selected to ensure statistical significance.

Data Analysis Techniques

- **Quantitative Analysis:** Statistical tools such as SPSS and Excel are used for descriptive and inferential analysis.
- **Qualitative Analysis:** Thematic analysis is employed to interpret textual data from interviews and focus groups.

Ethical Considerations

- **Informed Consent:** Participants are briefed on the study's purpose and provide voluntary consent.
- **Confidentiality:** Personal information is kept anonymous and used strictly for research purposes.
- **Data Integrity:** Measures are taken to ensure data accuracy and prevent manipulation.

Limitations of the Study

- **Time Constraints:** Limited time may affect the depth of data collection.
- **Response Bias:** Participants' subjective responses may influence findings.
- **Resource Limitations:** Availability of secondary data sources may impact the study's comprehensiveness.

The research methodology ensures a systematic and rigorous approach to data collection and analysis, enhancing the validity and reliability of the findings. The combination of qualitative and quantitative methods provides a holistic understanding of the research problem.

RESULTS

Variable	Group	Number in sum	Mean	SD
Gender of the	Boys	250	137.26	12.73
learner	Girls	250	141.66	10.92

Table 1: Based on the gender of the students



Figure 1: Mean mental health score of learners with their gender

According to the aforementioned table and graphic, teenage boys have a mean mental health score that is lower than that of adolescent girls (137.26 vs. 141.66). Boys' SD scores are 12.73 and girls' SD scores are 10.92, respectively. The findings imply that teenage girls had greater mental health than teenage boys. Table 2: Cross tabulation based on gender

Variable			Leve	Total		
		Average Poor		Poor	Very-Poor	HORD COMPANY
	D	Count %	17	93	140	250
Gender Girls	of Total	3.4%	18.6%	28.0%	50.0%	
	Cirle	Count %	24	155	71	250
	of Total	4.8%	31.0%	14.2%	50.0%	
Total		Count %	41	248	211	500
		of Total	8.2%	49.6%	42.2%	100.0%

Out of 250 boys participating in the study, 28.0% (n=140) have poor mental health, 18.6% (n=93) have poor mental health, and 3.4% (n=17) have average mental health, according to table 4.2 above. Comparatively, out of 250 females in the study, 14.2% (n=71) have extremely poor mental health, 31.0% (n=155) have poor mental health, and 4.8% (n=24) have average mental health.

Variable	Group	Sum of number	Mean	SD	Minimum	Maximum
Caste of	General	99	143.10	11.51	116	164
the	Scheduled Caste	291	137.90	12.22	109	167
learner	Other Backward Class	110	140.31	11.36	115	167



Figure 2: Mean mental health score of learners with their caste

According to table 3 and the graphical representation, general caste students have a mean mental health score of 143.10, scheduled caste students have a mean score of 137.90, and other backward students have a mean score of 140.31. (figure no. 2). The mean score of students in the general, scheduled, and other backward classes varies as a result. Students from general castes have better adolescent mental health. The SD score for general students is 11.51, for students from scheduled castes it is 12.22, and for students from other backward classes it is 11.36.

Variable	Variable				Level of Mental Health			
	V1-		Average	Poor	Very-Poor			
	General	Count % of Total	11 2.2%	59 11.8%	29 5.8%	99 19.8%		
Caste of the Learners	Scheduled Caste	Count % of Total	19 3.8%	138 27.6%	134 26.8%	291 58.2%		
	Other Backward Class	Count % of Total	11 2.2%	51 10.2%	134 26.8% 48 9.6%	110 22.0%		
Total		Count % of Total	41 8.2%	248 49.6%	211 42.2%	500 100.0%		

Table 4: Cross tabulation based on caste

From the 99 general caste students enrolled in the program, 5.80% (n=29) have very poor mental health, 11.8% (n=59) have poor mental health, and 2.2% (n=11) have average level of mental health. From the 291 students in the schedule caste, 26.8% (n=134) have very poor mental health, 27.6% (n=138) have poor mental health, and 3.8 percent of students (n=19) have average mental health. Similar results were obtained among 110 additional backward students, showing that 10.2% (n=51) had bad mental health, 9.6% (n=48) had extremely poor mental health, and 8.2% (n=11) had medium mental health. Table 5: Based on the educational status of the students

Variable	Group	Total number	Mean	SD
Educational status of the learner	Class IX and X	227	140.67	11.68
	Class XI and XII	273	138.45	12.28



Figure 3: Mean mental health score of learners with their educational status The results of the table 5 and the graph (figure 3) show that standard IX and X teenage students scored higher on the mental health scale than did standard XI–XII adolescent students (mean=138.45). SD scores for students in classes IX and X are 11.68, while SD scores for students in classes XI through XII are 12.28. The mean and SD scores for the two standard students differ as a result.

Variable	Group	Total number	Mean	SD	df	t- value	Sig./p(2tailed) value	Remark (0.05 level)
Gender of	Boys	250	137.26	12.73	498	4.15	0.000	Significant
the reamer	Girls	250	141.66	10.92				

Table 6: t-test for mental health of students on the basis of gender

Boys (n=250) and females (n=250) adolescent school pupils' mean mental health scores were determined using an independent t-test, as shown in the table above. At the 0.05 level, the mean difference is 4.40, which is statistically significant, indicating that girls have superior mental health than boys. The null hypothesis "There is no significant mean difference in the level of mental health among adolescent school students on the basis of their gender" is therefore rejected.

	Ν	Mean	SD	Std. Error	95% Confidence Interval for Mean		
					Lower Bound	Upper Bound	
General	99	143.10	11.519	1.158	140.80	145.40	
Scheduled Caste	291	137.90	12.227	.717	136.49	139.31	
Other Backward Class	110	140.31	11.360	1.083	138.16	142.46	
Total	500	139.46	12.056	.539	138.40	140.52	

Table 7: descriptive result for mental health of students on the basis of caste

A one-way between-group Analysis of Variance (ANOVA) was used to examine the impact of caste (General, Scheduled Caste, and Other Backward Class) on adolescents' perceptions of their mental health.

DISCUSSION

The study reveals significant gender-based disparities in adolescent mental health, with girls exhibiting higher mean mental health scores (141.66) compared to boys (137.26). The t-test analysis confirms that this difference is statistically significant, suggesting that boys experience greater mental health challenges. Cross-tabulation further highlights that a higher percentage of boys fall into the "extremely poor" mental health category. These findings indicate a pressing need for gender-sensitive mental health interventions in schools. Caste-based disparities are also evident, as students from the General category report the highest mental health scores (143.10), while Scheduled Caste students have the lowest (137.90), with OBC students falling in between (140.31). ANOVA analysis indicates that caste significantly affects mental health, with Scheduled Caste students being disproportionately affected. Cross-tabulation

reinforces this trend, showing that a large percentage of Scheduled Caste students fall into the "very poor" and "poor" mental health categories. These results underscore the necessity for targeted mental health programs addressing socio-economic disadvantages and social pressures faced by marginalized caste groups.

The study further examines the impact of educational status, revealing that students in classes IX and X have slightly better mental health (mean: 138.45) compared to those in classes XI and XII. This trend suggests that older students may experience higher academic stress, contributing to lower mental health scores. Graphical representations consistently validate these findings, reinforcing the relationship between mental health and academic pressure. Overall, the study highlights critical socio-demographic influences on adolescent mental health. The findings suggest the need for school-based mental health programs, particularly for boys, Scheduled Caste students, and senior high school students facing academic stress. Future policies should focus on inclusive mental health interventions, addressing both gender and socio-economic disparities to promote overall well-being.

CONCLUSION

The study highlights significant gender, caste, and educational disparities in adolescent mental health. The findings suggest that girls generally exhibit better mental health than boys, with statistical analysis confirming this difference. This indicates that boys may face greater mental health challenges, necessitating targeted interventions to support their emotional well-being. Caste-based differences are also evident, with students from the General category reporting the highest mental health scores, while Scheduled Caste students have the lowest. The ANOVA analysis confirms that caste has a significant impact on mental health, emphasizing the need for mental health programs that consider socio-economic and social disadvantages faced by marginalized caste groups. Educational status also plays a role in mental health outcomes, with students in lower grades (IX and X) scoring higher than those in higher grades (XI and XII). This suggests that academic pressure and future career concerns may negatively impact mental health as students advance in their studies.

In conclusion, the study underscores the importance of developing inclusive and targeted mental health initiatives in schools. There is a critical need for gender-sensitive, caste-aware, and academic stress-reducing programs to ensure the well-being of adolescent students. Schools, policymakers, and mental health professionals should collaborate to implement support systems that address these disparities and promote holistic mental health care for all students.

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