



Innovations in Medical Education: Integrating Public Health Principles into Psychiatry Syllabus

¹Dr. K. Sowmiya, ²Dr. R. Karthikeyan.

¹ MD, DPM, Assistant Professor, Department of Physiology, KAPV Government Medical College, Trichy, Tamilnadu

²Associate Professor, Department of Physical Medicine and Rehabilitation, SRM Medical College Hospital and Research Centre, SRMIST, Kattankulathur, Tamilnadu

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ABSTRACT:

Introduction: Considering the dynamic and changing landscape of the medical field the invocation in the syllabus is essential. As a result, the study has given rise to a comprehensive understanding of the creative modifications in medical education that may be made by integrating public health ideas into the psychiatric syllabus. Further, the objective, question, and hypothesis of the research are presented in the introduction.

Literature Review: Past research related to the integration of innovative module and the importance of integrating “public health principles” in the psychiatry syllabus was reviewed. Further indigenous perspective regarding the topic was established.

Methodology: After the primary data collection, quantitative analysis was performed using IBM SPSS. Seventy survey participants were given 13-item questionnaires; those who were selected for an interview with the purpose of obtaining data were then contacted.

Findings: It was discovered that the module must be pertinent and tailored to the interests of the students. It was also observed that the teacher's proficiency and the module design had an impact on the module's acceptance.

Discussion: The investigation's findings are logically examined, and recommendations derived from statistical analysis are presented. Moreover, the protein offers sufficient information to cover the results.

Conclusion: To give a brief overview of the whole empirical investigation, the research summary and a brief interpretation of the results are presented.

Introduction

It can be noted that the landscape of psychometric healthcare has changed significantly over time. According to the opinion of Eichbaum et al. (2021) having dynamic knowledge has become a significant factor in understanding the patients properly. Moreover, having dynamic knowledge at the time of addressing a patient aids in developing a holistic understanding of the psychometric issue. For such a dynamic landscape of public health understanding the importance of public health principles (“public health principles”) is beneficial for medical students (Santana et al. 2021). Therefore, the study has provided an extensive idea regarding the innovative changes in medical education by

incorporating “public health principles” into the psychiatry syllabus.

It was noted that there are different issues associated with the integration of a new syllabus. For instance, Gonzalez, Nielsen & Lasater (2021) have stated that the integration of a new syllabus is associated with the skill of faculty. Moreover, a faculty needs to be adaptable to the syllabus and the method of teaching. On the other hand (Walsh et al. 2020) have stated that in order to successfully implement a new syllabus adaptability of students is a significant issue. Furthermore, it was noted that the relevance of the topic and the resources of the facility is an issue regarding implementing innovations in the medical field.

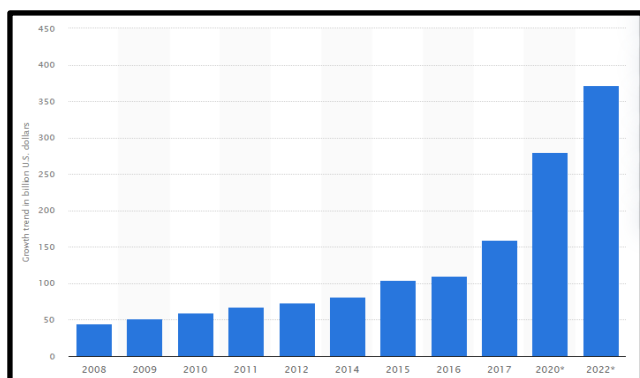


Figure 1: Growth in the trends in the healthcare sectors of India.

(Source: Statista, 2024)

Figure 1 is associated with the changes in the healthcare sector in India where a significant change is illustrated. It can be seen that in 2008 the healthcare sector of India was 45 billion USD (Statista, 2024). Over the past few years, the Indian healthcare industry has grown rapidly. The healthcare industry is expected to reach 373 billion USD in 2022 (Statista, 2024). Moreover, the healthcare industry's annualized compound growth rate was found to be 16.28% between 2008 and 2022 (Statista, 2024). Therefore, with such changes in the medical field, it is essential to have a holistic understanding of the medical professional. Hence, the aforementioned data aid in justifying the rationality and the intention of the study.

Aim

The empirical analysis primarily aims to analyse new developments in medical education through understanding the inclusion of “public health principles” in the syllabus for psychiatry

Research objectives

RO1: To understand the factors associated with the adoption of innovative changes in the medical syllabus

RO2: To address the importance of the inclusion of “public health principles” in the syllabus for psychiatry.

RO3: To analyse the issues associated with the inclusion of “public health principles” in the syllabus for psychiatry

RO4: To suggest relevant suggestions in order to include “public health principles” in the syllabus for psychiatry with less resistance.

Research Questions

RQ1: What are the factors associated with the adoption of innovative changes in the medical syllabus?

RQ2: How to address the importance of the inclusion of “public health principles” in the syllabus for psychiatry?

RQ3: What are the issues associated with the inclusion of “public health principles” in the syllabus for psychiatry?

RQ4: How to include “public health principles” in the syllabus for psychiatry with less resistance?

Hypothesis

H1: Integration of “public health principles” in the psychiatry syllabus is related to the method of teaching.

H2: Adaptability of the students influences the integration of “public health principles” in the psychiatry syllabus

H3: Successful integration of “public health principles” in the psychiatry syllabus and the skills of faculty are related

H4: Relevance is a significant factor that influences the integration of “public health principles” in the psychiatry syllabus

Literature Review

Critical discussion on the importance of the inclusion of “public health principles” in the syllabus for psychiatry

Through the analysis of the past analysis, it was evident that there are different fatal groups aiding in the nourishment of mental health issues. For instance, Gray, Hanna & Reifels (2020) have stated that a lack of understanding of mental health issues is based on the background of the patient. Therefore, understanding the root causes is essential in order to address a mental health-related problem. According to the suggestions of Xin (2020), a thorough program in psychiatry must incorporate a socio-ecological viewpoint in addition to the conventional biological one. However, understanding the socio-economic factors needs to be bounded with certain limitations. As per the opinion of Mayo et al. (2023), The epidemiology of mental health issues highlights the necessity for psychiatry to adopt a public health-focused approach. Therefore, understanding the “public health principles” becomes an effective method to bond with the patient and understand the root causes.



Figure 2: Community components and their role in mental health issues

(Source: Gray, Hanna & Reifels, 2020)

Figure 2 of the statistical analysis is associated with the community components that play a critical role in mental health issues. Thus, understanding “public health principles” aids in understanding the factors associated with a mental health-related issue. As per the opinion of Brower (2021), One widespread issue that interacts with public health concerns is the stigma associated with mental health disorders. Therefore, a psychiatrist is required to be attentive to each patient. In such factors understanding “public health principles” is important. On the other hand, Hughes, Shaw & Greenhalgh (2020) have argued that the use of collaborative care models in the delivery of healthcare is growing in significance. The convergence of public health and psychiatry highlights the significance of multidisciplinary cooperation. Therefore, it can be concluded that psychiatry students have a greater grasp of working in a larger healthcare team and learn how to collaborate and communicate effectively with experts

from different backgrounds by being exposed to public health ideas.

Analysis of the factors associated with the adoption of innovative changes in the medical syllabus

Through the analysis of past literature, it was evident that an innovative adjustment to the psychiatric syllabus is the incorporation of public health concepts. Examining the variables that affect its uptake can yield insightful information for a successful deployment. According to the suggestion of Richardson et al. (2020) characteristics of the teachers are essential for the successful adoption of innovative changes. Moreover, the perspective of the teacher is an important element in the adoption of relevant changes in the medical syllabus. On the other hand, Mardiana (2020) has stated that the adaptability of the student is an essential factor related to the adaptation of a new syllabus. Moreover, greater motivation can foster by interest in community-oriented psychiatry. Therefore, it can be understood that teachers and students both need to adapt to the module of learning in order to seamlessly adapt to a syllabus.

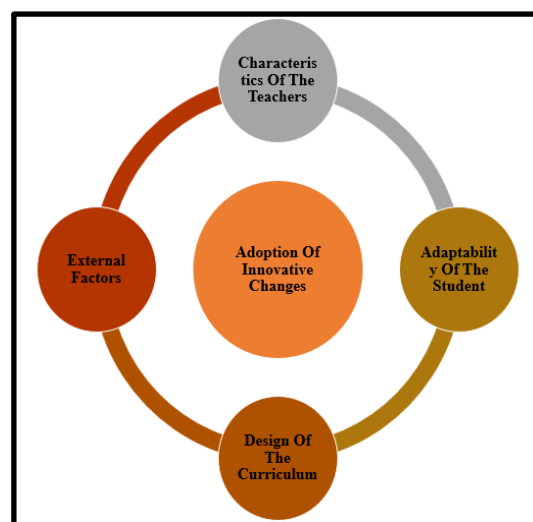


Figure 3: factors associated with the adoption of innovative changes

(Source: Supriani et al. 2022)

Figure 3 illustrates the factors associated with the adoption of innovative changes in the medical syllabus. According to the opinion of Supriani et al. (2022), the design of the syllabus is significant in order to the successful integration of a medical syllabus. Moreover, with a relevant design effective adoption of



the syllabus is possible. On the other hand, Wu & Chen (2021) have stated that external factors such as funding and relevance of a syllabus are important factors associated with the adoption of a syllabus. Hence it can be understood that in order to integrate “public health principles” in the syllabus for psychiatry all the formation factors need to be considered.

Methodology

For the research process, primary qualitative approaches were employed. According to Purwanto (2021), acquiring primary quantitative data makes it easier to acquire precise and concise information that supports the creation of significant results. In order to further clarify the research issue, the study also included a descriptive research design and a deductive research technique. A survey was distributed to those involved in the medical field, and information on the participants' demographics and general experiences was gathered in order to provide pertinent research. Furthermore, demographic information helps to clarify the significance of those variables in the aggregated data.

Thirteen closed-ended questions made up the questionnaire; ten of them dealt with study-related aspects and three related to demographic traits. Operational datasets have been used to assess the level of knowledge for data analysis (Fasya, Darmayanti, and Arsyad, 2023). SPSS analysis was used throughout the whole research procedure to obtain pertinent study results. Another method the research study used to function was determining the significance of the regression analysis, ANOVA test, and correlational analysis. Thus, descriptive statistics were provided to determine the scope and comprehension of the dataset.

Finding and based on the quantitative data

Demographic Analysis

Gender

What is your Gender?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	14	20.0	20.0	20.0
	Male	50	71.4	71.4	91.4
	Others	6	8.6	8.6	100.0
	Total	70	100.0	100.0	

Table 1: Analysis of Gender

(Source: SPSS analysis)

The gender-based analysis and response frequency for the survey group are presented in Table 1 of the statistical evaluation. Of the seventy-one, 14 were found to be female and 50 to be male. Six additional people were identified as belonging to other gender categories.

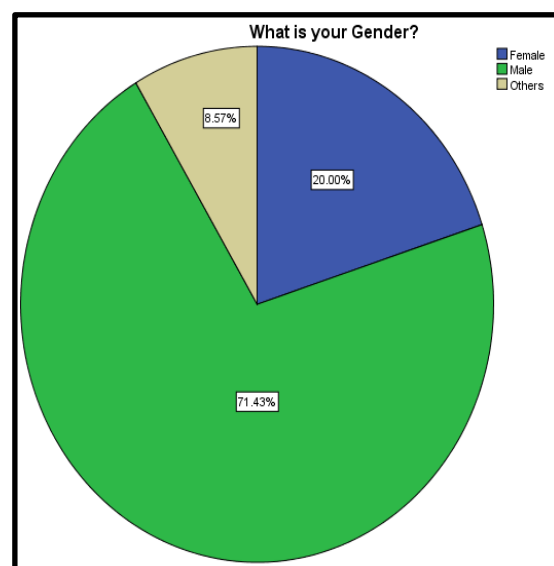


Figure 4: Analysis of Gender

(Source: SPSS analysis)

The pie chart in Figure 4 of the research displays the percentage of each gender in the sample population. According to the pie chart above, men made up 71.4% of the participants, and women represented 20% of the responses. In addition, it was found that 8.6% of candidates identify as another gender group. The demographic study revealed that men made up the bulk of the data set's population.

Age Group

What is your age (In Years)?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 60	8	11.4	11.4	11.4
	Below 20	12	17.1	17.1	28.6
	Between 20 to 35	28	40.0	40.0	68.6
	Between 35 to 60	22	31.4	31.4	100.0
	Total	70	100.0	100.0	

Table 2: Analysis of Age Group

(Source: SPSS analysis)

The average number of respondents in the survey group in relation to the participant's age range is displayed in



Table 2 of the statistical evaluation. Twelve of the people clearly seemed to be less than twenty years old. In addition, 22 of the seventy people were in the 30- to 60-year-old age range. The age range of 20 to 35 was likewise represented by 28 of the participants. In addition, 8 participants were there who were above 60 years of age.

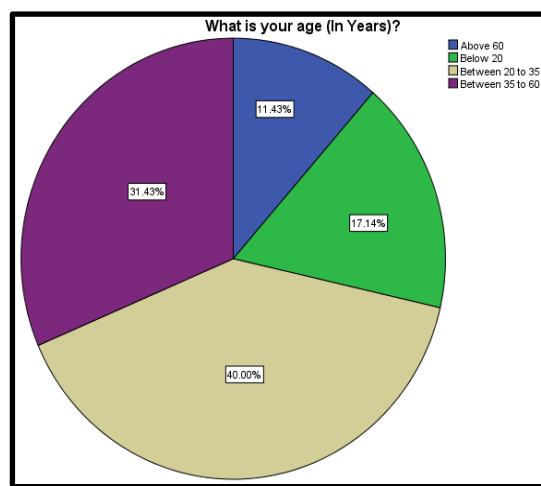


Figure 5: Analysis of Age Group
(Source: SPSS analysis)

Figure 5 of the empirical study displays a pie chart with the age-related proportion. It was clear that participants were mostly between the ages of twenty and thirty-five. The pie chart also makes it clear that 17.1% of participants are younger than 20 and 11.4% were above the age of 60 years. Furthermore, 31.4% of the individuals were in the 35–60 age range. Furthermore, 40% of the population was in the 20–35 age range. It makes sense to assume that younger individuals make up the bulk of survey respondents.

Experience level

How long have you been associated with the medical profession?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 11 to 15 years	6	8.6	8.6	8.6
6 to 10 years	44	62.9	62.9	71.4
Less than 5 years	12	17.1	17.1	88.6
More than 15 years	8	11.4	11.4	100.0
Total	70	100.0	100.0	

Table 3: Analysis of Experience level
(Source: SPSS analysis)

Table 3 of the empirical analysis is associated with the experience level of the participants whose frequency is visible. It can be seen that participants having less than 5 years of experience had a frequency of 12. Participants 11 to 15 years of experience have a frequency of 6 and participants having experience more than 15 years have a frequency of 8. Furthermore, participants having 6 to 10 years of experience had the highest frequency of 44.

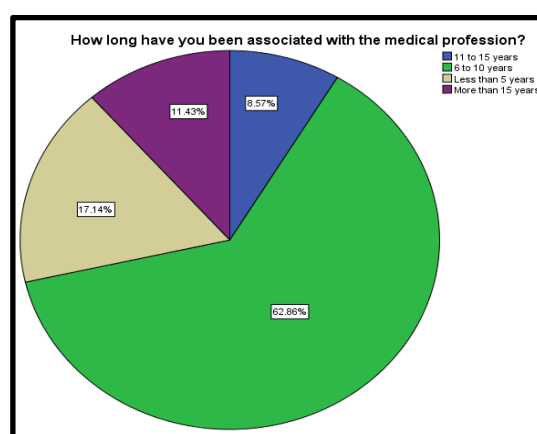


Figure 6: Analysis of Experience level
(Source: SPSS analysis)

The illustration of Figure 6 of the empirical analysis deals with the participants' experience level, which is linked to their percentage representation of the same. It is evident that those with fewer than 5 years of experience had a representation of 17.1%. Individuals having experience of 11 to 15 years have a frequency of 8.6%, whereas those with over 15 years of experience exhibit an 11.4% representation. Furthermore, the maximum representation of 62.9% was seen among individuals with six to ten years of expertise.

Statistical Analysis

Descriptive Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
DV	70	3.00	8.00	4.0857	1.49145
IV1	70	3.00	8.00	3.9714	1.58774
IV2	70	2.00	8.00	4.0571	1.71849
IV3	70	2.00	8.00	4.1429	1.67060
IV4	70	2.00	8.00	3.8000	1.89278
Valid N (listwise)	70				

Table 4: Descriptive statics of different variables
(Source: SPSS analysis)



Table 4 of the statistical analysis is associated with the descriptive statistics of the variables associated with the topic. As defined by Mishra et al. (2019), descriptive statistics, enable us to investigate the relationship between variables. Factor outliers can also be taken into consideration by using descriptive statistics (Sarka & Sarka, 2021). Descriptive statistics were therefore applied in the research. The standard deviation of 1.49145 and mean of 4.0857 are the values of the DV. The mean value of the “first independent variable” is 3.9714 with a standard deviation of 1.58774, whereas the mean value of the “second independent variable” is 4.0571 with a standard deviation of 1.71849.

The mean value of the “third independent variable” is 4.1429 with a standard deviation of 1.67060, while the mean value of the “fourth independent variable” is 3.8000 with a standard deviation of 1.89278. The data are therefore centered around the means as all of the variable means are higher than the standard deviations (Siedlecki, 2020). It is also evident that the data set is extensively dispersed and that there are relatively few outliers. It also makes it reasonable to consider the potential that the data is not moving forward very rapidly.

Hypothesis 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.944	.890	.889	.49762

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	136.647	1	136.647	551.836	.000
Residual	16.838	68	.248		
Total	153.486	69			

Coefficients				
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	.566	.161	.001
	IV1	.886	.038	.000

Table 5: “Regression analysis of H1”

(Source: SPSS analysis)

The regression analysis for the “first hypothesis” is linked to Table 5 of the statistical analysis. As stated by Wald (2020), the method of teaching aids in the adaptation of a new syllabus. Therefore, a relation between the method of teaching (IV1) and the integration of “public health principles” in the psychiatry syllabus (DV) is the presumed first hypothesis. The value of

significance is seen to be 0.000 indicating that the hypothesis is supported. Moreover, the null hypothesis can be rejected for the same.

Hypothesis 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756	.571	.565	.98382

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	87.668	1	87.668	90.575	.000
Residual	65.818	68	.968		
Total	153.486	69			

Coefficients				
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	1.425	.303	.000
	IV2	.656	.069	.000

Table 6: “Regression analysis of H2”

(Source: SPSS analysis)

Table 6 is associated with the “linear regression analysis” of the “second hypothesis”. The relation of integration of “public health principles” in the psychiatry syllabus (DV) is associated with the adaptability of the students (IV1) in the second hypothesis. It can be seen that the significance value is 0.000 indicating that the hypothesis is supported with the study. At the same time, the null hypothesis for the same can be rejected.

Hypothesis 3

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833	.693	.689	.83212

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	106.401	1	106.401	153.667	.000
Residual	47.084	68	.692		
Total	153.486	69			

Coefficients				
Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	1.006	.268	.000
	IV3	.743	.060	.000

Table 7: “Regression analysis of H3”

(Source: SPSS analysis)

Table 7 of the empirical study is associated with the “regression analysis” of the third hypothesis. According to the opinion of Herlitz et al. (2020), the skill of the faculty is one of the significant factors associated



with the adoption of the modern syllabus. Therefore, a relationship between a relation of teacher's skill (IV1) along with integration of "public health principles" in the psychiatry syllabus (DV) is portrayed. The value of significance is 0.000 indicating that the hypothesis is supported with the topic. Further, a F value of 153.667 indicates that the analysis is statistically significant.

Hypothesis 4

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.797	.635	.629	.90786	

ANOVA					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	97.439	1	97.439	.000
	Residual	56.046	68	.824	
	Total	153.486	69		

Coefficients					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.700	.245		.000
	IV4	.628	.058	.797	.000

Table 8: "Regression analysis of H4"

(Source: SPSS analysis)

Table 8 of the statistical study is associated with the regression analysis of the fourth hypothesis where a relation between relevance (IV4) and Integration of "public health principles" in the psychiatry syllabus (DV) is presumed. Relevance of the topic aids in the smooth acceptance of an innovative syllabus (Shelton et al. 2020). Hence, the relation of the DV and IV4 was presumed. Considering the significance value which is 0.000 it can be stated that the hypothesis is supported with the topic.

Correlation Test

Correlations						
		DV	IV1	IV2	IV3	IV4
DV	Pearson Correlation	1	.944 ^{**}	.756 ^{**}	.833 ^{**}	.797 ^{**}
	Sig. (2-tailed)		.000	.000	.000	.000
	N	70	70	70	70	70
IV1	Pearson Correlation	.944 ^{**}	1	.808 ^{**}	.799 ^{**}	.818 ^{**}
	Sig. (2-tailed)	.000		.000	.000	.000
	N	70	70	70	70	70
IV2	Pearson Correlation	.756 ^{**}	.808 ^{**}	1	.573 ^{**}	.512 ^{**}
	Sig. (2-tailed)	.000	.000		.000	.000
	N	70	70	70	70	70
IV3	Pearson Correlation	.833 ^{**}	.799 ^{**}	.573 ^{**}	1	.871 ^{**}
	Sig. (2-tailed)	.000	.000	.000		.000
	N	70	70	70	70	70
IV4	Pearson Correlation	.797 ^{**}	.818 ^{**}	.512 ^{**}	.871 ^{**}	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	70	70	70	70	70

Table 9: Correlation analysis among variables

(Source: IBM SPSS)

Table 9 is the correlation matrix of the variables of the study. The correlation matrix can be used to ascertain if there is a positive or negative relationship between two variables (Chatterjee, 2021). It can be seen that DV and IV1 have a very significant positive correlation (0.944), indicating a tendency to move in tandem. IV2 and IV3 (0.8870) and IV2 and IV4 (0.9398) have a very significant negative correlation, indicating a tendency to move in opposing directions. Correlation data from the study may therefore be used to understand changes and their effects. Every variable and every bit of information has shown a favourable correlation. This suggests that there may be multicollinearity, a situation in which variables provide duplicate data and have a high correlation with one another.

Discussion

From the analysis, it can be seen that all the variables are supported with sufficient evidence as the significant value is 0.000. According to the opinion of Morote et al. (2022), the method of teaching is significant in the acceptance of a new model. Additionally, the relation in hypothesis suggests that the teaching method is relevant to the integration of "public health principles" in the psychiatry syllabus. Additionally, the adaptability of students is a significant factor in integrating an innovative module (Gislason, Kennedy & Witham, 2021). Therefore, it can be stated that for the integration of "public health principles" into the psychiatry syllabus student perspective is essential. At the same time, the regression analysis indicated that IV3 and IV4 have a substantial positive association (0.8419), indicating a tendency to move in tandem. Each of the other relationships is less strong. Hence it is evident skill of the faculty and the relevance of the module are significant factors associated with the acceptance of "public health principles" in the psychiatry syllabus. At the same time past analyses have indicated that there are external factors associated with the same. Such as resources and trends in the field that significantly influences the adoption of "public health principles" in the psychiatry syllabus.

Recommendation

- Providing sufficient training for the teacher regarding "public health principles" in the psychiatry syllabus is recommended.



- The strategic design of the module is recommended for student acceptance.
- Aligning the “public health principles” with the ongoing syllabus of psychometrics is recommended.

Conclusion

Thus, a primary quantitative analysis related to the integration of “public health principles” in the psychometric syllabus is presented. The data collection was done in a primary mode where data was gathered through an interview. After the collection of data, a quantitative analysis using IBM SPSS software was conducted. It was found that the module needs to be relevant and according to the student's interests. At the same time, it was noted that module design and the skill of the teacher are relevant to the acceptability of the module. Through the analysis of the past literature, it was noted that multidimensional knowledge is essential for students. Hence, such a syllabus aids psychiatrist in achieving a holistic understanding, moreover, the root causes of the issue can be significantly understood with such integration.

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