

A Descriptive Study to Assess the Knowledge Regarding Techo Plus and it's Importance Among Asha Workers Working in Selected Urban Health Centers at Guntur, Andhra Pradesh

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Abstract: Introduction: Digital health technologies have become an integral component of healthcare delivery systems, improving the efficiency, accessibility, and quality of health services. TECHO+ (Technology for Community Health Operations Plus) is an innovative mobile and web-based application designed to support community healthcare workers in the management, monitoring, and reporting of maternal, child, and reproductive health services. As Accredited Social Health Activists (ASHAs) serve as the frontline workforce in community health programs, their knowledge and understanding of TECHO+ are crucial for its effective utilization and successful implementation. Assessing the knowledge of ASHA workers regarding TECHO+ and its importance can help identify existing gaps and inform strategies for capacity building and improved service delivery. Therefore, this study aimed to assess the knowledge regarding TECHO+ and its importance among ASHA workers working in selected Urban Health Centers of Guntur, Andhra Pradesh. Objectives Of the study: To assess the level of knowledge regarding Techo Plus and its importance among ASHA workers. And To determine the association between the level of knowledge and selected socio Demographic variables among ASHA workers. Material and Methods: A quantitative research approach with a descriptive cross-sectional study design was adopted for the study. The study was conducted among ASHA workers working in selected Urban Health Centers of Guntur, Andhra Pradesh. A total of 60 ASHA workers were selected using a non-probability convenience sampling technique. Data were collected using a structured knowledge questionnaire developed to assess knowledge regarding TECHO+ and its importance. The tool consisted of two sections: socio-demographic characteristics and knowledge-related questions on TECHO+. Data were analyzed using descriptive statistics such as frequency, percentage, mean, and standard deviation to assess the level of knowledge among the participants. Results: A total of 60 ASHA workers participated in the study. The majority (56.66%) were aged 25–30 years, 51.66% were graduates, and 33.33% had 1–4 years of work experience. Assessment of knowledge regarding TECHO+ revealed that 56.66% of participants had adequate knowledge, while 43.33% had moderate knowledge; none demonstrated inadequate knowledge. The mean knowledge score was 18.08 ± 3.14 , indicating a satisfactory level of knowledge among the participants. A strong positive correlation ($r = 0.91$) was observed. Chi-square analysis showed no statistically significant association between knowledge levels and selected socio-demographic variables including age, religion, educational status, years of experience, and area of work. Overall, the findings indicate that ASHA workers possessed moderate to adequate knowledge regarding TECHO+ and its importance. The difference was statistically significant ($t=3.14$, $p > 0.05$). Conclusion: The study concluded that ASHA workers possessed moderate to adequate knowledge regarding TECHO+ and its importance in community healthcare services. Although the majority demonstrated adequate knowledge, continuous training and capacity-building programs are essential to further enhance their understanding and effective utilization of the application. Strengthening digital health competencies among ASHA workers can contribute to improved data management, beneficiary tracking, and overall healthcare service delivery. No significant association was found between knowledge levels and selected socio-demographic variables.

Keywords: TECHO+, ASHA Workers, Digital Health, Knowledge, Community Health, Primary Healthcare.

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I. INTRODUCTION

Digital health technologies have emerged as an essential component of modern healthcare systems, enhancing the efficiency, accessibility, and quality of healthcare services. TECHO+ (Technology Enabled Community Health Operations Plus) is a mobile-based digital health platform designed to support frontline healthcare workers in beneficiary tracking, real-time data management, and monitoring of maternal and child health services. ASHA workers play a pivotal role in implementing community health programs and utilizing digital health applications for effective service delivery. Adequate knowledge regarding TECHO+ is crucial for ensuring accurate data reporting, timely follow-up of beneficiaries, and improved healthcare outcomes. Therefore, the present study was undertaken to assess the knowledge regarding TECHO+ and its importance among ASHA workers working in selected Urban Health Centres of Guntur, Andhra Pradesh.

➤ Need for the Study

The increasing adoption of digital health technologies has significantly improved healthcare service delivery and data management. ASHA workers play a vital role in implementing community health programs and utilizing digital health applications such as TECHO+ for beneficiary tracking and reporting. However, limited knowledge and inadequate training in the use of digital health tools may affect the quality of healthcare services. Studies have shown that a considerable proportion of ASHA workers possess only moderate knowledge regarding digital health applications. In Guntur, Andhra Pradesh, limited evidence is available

regarding the knowledge of ASHA workers about TECHO+ and its importance. Therefore, this study was undertaken to assess their knowledge, identify existing gaps, and provide evidence for developing appropriate training strategies to enhance the effective utilization of TECHO+ and improve community healthcare services.

II. MATERIALS AND METHODS

A descriptive research design was used to assess the knowledge regarding TECHO Plus and its importance among ASHA workers working in selected urban health centers at Guntur, Andhra Pradesh. The study was conducted in selected urban health centers, and ASHA workers who met the inclusion criteria were selected using a non-probability convenient sampling technique.

A structured questionnaire was used for data collection, consisting of demographic variables and knowledge-based questions on TECHO Plus and its importance. The tool was validated by experts, and reliability was ensured through a pilot study.

Prior permission was obtained from the concerned authorities, and informed consent was taken from all participants. Data were collected through a structured interview method in the workplace setting, maintaining confidentiality and ethical standards.

The collected data were analyzed using descriptive and inferential statistics such as frequency, percentage, mean, and standard deviation.

III. RESULT

Table 1: Frequency and percentage distribution of demographic variables of techo + Among ASHA Workers.

SL.NO	ASHA WORKERS		
	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	AGE		
	a. 25-30 years	34	56.66%
	b. 31-35 years	11	18.33%
	c. 36-40 years	8	13.33%
	d. Above 40 years	7	11.66%
2	RELIGION		
	a. Hindu	20	33.33%
	b. Muslim	17	28.33%
	c. Christian	18	30%
	d. Others	05	8.33%
3	EDUCATION		
	a. Illiterate	4	6.66%
	b. Primary education	11	18.33%
	c. 8 th standard pass	14	23.33%
	d. Graduate	31	51.66%
4	YEAR OF EXPERIENCE		
	a. Less than 1 year	17	28.33%
	b. 1 to 4 years	20	33.33%
	c. 5 to 10 years	15	25%
	d. More than 10 years	8	13.33%
5	AREA OF WORK		
	a. Rural	23	38.33%

	b. Urban	37	61.66%
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Table 1: The socio-demographic profile of ASHA workers (N=60) shows that the majority (56.66%) were in the age group of 25–30 years, followed by 18.33% in 31–35 years, 13.33% in 36–40 years, and 11.66% above 40 years. Regarding religion, 33.33% were Hindu, 28.33% Muslim, 30% Christian, and 8.33% belonged to other religions. In terms of education, most participants were graduates (51.66%), while 23.33% had completed secondary education, 18.33% had primary education, and 6.66% were illiterate. With respect to work experience, 33.33% had 1–4 years of experience, 28.33% had less than 1 year, 25% had 5–10 years, and 13.33% had more than 10 years of experience. Additionally, the majority of ASHA workers (61.66%) were working in urban areas, while 38.33% were from rural areas.

Table 2 Frequency and Percentage Distribution of ASHA Workers According to their Knowledge Regarding Techo Plus.

LEVEL OF KNOWLEDGE	ASHA WORKERS	
	FREQUENCY	PERCENTAGE
INADEQUATE (0-12 MARKS) (0-50%)	0	0%
MODERATE (13-18 MARKS) (51-75%)	26	43.33%
ADEQUATE (19-25 MARKS) (76-100%)	34	56.66%

Table 2: The findings on the level of knowledge among ASHA workers (N=60) reveal that none of the participants (0%) had inadequate knowledge (0–12 marks). A considerable proportion, 43.33% (26 workers), had moderate knowledge (13–18 marks), while the majority, 56.66% (34 workers), demonstrated adequate knowledge (19–25 marks).

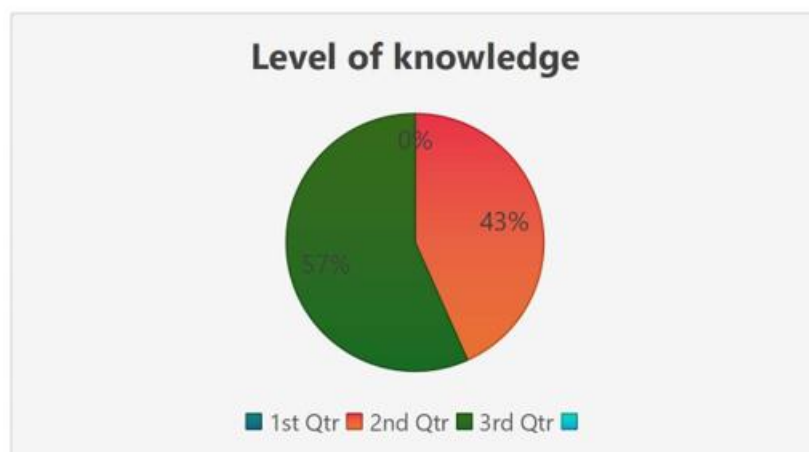


Fig 2: Percentage Distribution of Level of Knowledge on Techo Plus and Importance of Asha Workers

Table 3: To Find the Mean and Standard Deviation Among ASHA Workers.

SL.NO	SAMPLE	MEAN	STANDARD DEVIATION
1.	ASHA WORKERS	18.08	3.14

Note: s-significant at $p > 0.05$

Table 3: The data presented for ASHA workers indicate that the mean knowledge score was 18.08, with a standard deviation of 3.14. This suggests that, on average, the respondents demonstrated a moderate level of knowledge, with relatively low variability in their scores. The smaller standard deviation indicates that most of the ASHA workers' scores were clustered closely around the mean, reflecting consistency in their level of knowledge across the sample. Overall, the findings imply that while the knowledge level is fairly uniform among the participants, there remains scope for improvement to achieve higher competency levels.

Table 4 To Find the Correlation Value Among ASHA Workers.

SL. NO	SAMPLE	MEAN	STANDARD DEVIATION	CORRELATION (r)
1.	ASHA WORKERS	18.08	3.14	0.91 Strong positive correlation

Table 4: The findings reveal that the mean knowledge score among ASHA workers was 18.08, with a standard deviation of 3.14, indicating a fairly consistent level of knowledge among the participants. Furthermore, the correlation coefficient ($r = 0.91$) demonstrates a strong positive correlation between the studied variables. This suggests that as one variable increases, the other also increases significantly. Overall, the results indicate not only uniform knowledge levels among ASHA workers but also a strong relationship between the variables under study.

Table 5: Association Between the Level of Knowledge Regarding TECHO Plus Among ASHA Workers in Selected Demographic Variables.

SL. NO	SOCIO DEMOGRAPHIC VARIABLES	LEVEL OF KNOWLEDGE				CHI - SQUARE
		ADEQUATE		MODERATE		
		F	P(%)	F	P(%)	
1.	AGE					df=3 X ² =5.90
	a. 25-30 years	27	45%	17	28.33%	
	b. 31-35 years	4	6.66%	2	3.33%	
	c. 36-40 years	1	1.66%	6	10%	
	d. Above 40 years	2	3.33%	1	1.66%	
2.	RELIGION					df=3 X ² =5.447
	a. Hindu	12	20%	16	26.66%	
	b. Muslim	4	6.66%	3	5%	
	c. Christian	14	23.33%	4	6.66%	
	d. Others	4	6.66%	3	5%	
3.	EDUCATION					df=3 X ² =8.45
	a. Illiterate	2	3.33%	2	3.33%	
	b. Primary education	3	5.33%	8	13.33%%	
	c. 8 th standard pass	10	16.66%	4	6.66%%	
	d. graduate	20	33.33%	11	18.33%	
4.	YEAR OF EXPERIENCE					df=3 X ² =3.067
	a. Less than 1 year	9	15%	7	11.66%	
	b. 1 to 4 years					
	c. 5 to 10 years	13	21.66%	6	16%	
	d. More than 10 years	9	15%	7	11.66%	
		3	5%	6	16%	
5.	AREA OF WORK					df=1 X ² =1.782
	a. Rural	10	16.66%	12	20%	
	b. Urban	24	40%	14	23.33%	

Table 5: The table shows the association between selected socio-demographic variables and the level of knowledge (adequate and moderate) using the chi-square test. Most participants belonged to the 25–30 years age group, and across all age categories, the association between age and knowledge was found to be not significant ($\chi^2 = 5.90$, $df = 3$). Similarly, religion also did not show a significant association with knowledge level ($\chi^2 = 5.447$, $df = 3$). In terms of education, although graduates had comparatively higher adequate knowledge, the statistical test indicated no significant association ($\chi^2 = 0.638$, $df = 3$). Years of experience showed some variation in knowledge levels, but again the association was not statistically significant ($\chi^2 = 3.067$, $df = 3$). Likewise, the area of work (rural and urban) did not have a significant relationship with knowledge ($\chi^2 = 1.782$, $df = 1$). Overall, the findings indicate that none of the selected socio-demographic variables had a statistically significant association with the knowledge level of the participants.

IV. DISCUSSION

The present study assessed the knowledge regarding TECHO Plus and its importance among ASHA workers in selected urban health centers at Guntur, Andhra Pradesh. The findings revealed that the majority of ASHA workers had an average level of knowledge regarding TECHO Plus, indicating a need for further strengthening of awareness and training programs.

These findings are consistent with studies conducted in similar community health settings, where ASHA workers demonstrated moderate awareness of digital health platforms and reporting systems. The observed knowledge gap may be attributed to limited exposure to structured training sessions, lack of continuous in-service education, and varying levels of educational background among ASHA workers.

Improved knowledge levels are essential for effective utilization of TECHO Plus, as it plays a significant role in strengthening maternal and child health services through better data management and service delivery tracking. Therefore, regular capacity-building programs and hands-on training sessions are recommended to enhance the competency of ASHA workers.

The study highlights the importance of continuous monitoring and supportive supervision to ensure effective implementation of digital health initiatives at the grassroots level.

V. CONCLUSION

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The study highlights the importance of continuous monitoring and supportive supervision to ensure effective implementation of digital health initiatives at the grassroots level.

RECOMMENDATION

- Conduct regular training and refresher programs on TECHO Plus for ASHA workers.
- Provide continuous in-service education to improve knowledge and skills.
- Ensure supportive supervision for effective implementation and use of TECHO Plus.
- Strengthen digital health literacy to improve reporting and community health services.

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