

Knowledge, Attitude and Approach Of Medical Interns of Tamil Nadu Regarding Infant and Young Child Feeding Practices: A Cross-Sectional Study

Dr. Gowtham N S¹, Dr. T T Gopinath (Corresponding Author)², Dr. M Sakthivel³, Dr. K Shankar⁴, Dr. V C Punitha⁵, Dr. M Paviya⁶, Dr. Divyaparthvathy J.⁷, Dr. J Susmitha⁸, Dr. A S Nizamudeen⁹

¹Senior Resident, Department of community Medicine Tagore Medical College and Hospital, Rathinamangalam, Chennai. Mail Id: gowthamsamiappan18@gmail.com., Orchid Id: 0009-0005-9071-254X.

²Associate Professor, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: goopsnatty@gmail.com, Orchid Id: 0000-0003-1790-8683

³Assistant Professor, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: drsakthivel96@gmail.com, Orchid Id: 0000-0002-4850-7922

⁴Professor, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: shankarsalem@gmail.com

⁵Associate Professor, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: drpunitha77@yahoo.co.in

⁶Senior Resident, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: paviyamoorthy@gmail.com, Orchid Id: 0009-0001-8228-8604

⁷Assistant professor Department of community Medicine Tagore Medical College and Hospital, Rathinamangalam, Chennai. Mail Id: divyaraj.nov93@gmail.com., Orchid Id: 0000-0001-5980-1732

⁸Senior Resident, Department of community Medicine PSP Medical College Hospital and Research Institute., Mail Id: jaisusi2@gmail.com

⁹Senior Resident, Department of community Medicine Meenakshi Medical College Hospitals and Research Institute (MMCH&RI), Meenakshi Academy of Higher Education & Research (MAHER), Chennai, Tamil Nadu, India. Mail Id: nizam.hatrizz@gmail.com, Orchid Id: 0000-0003-1750-040X

Abstract:

Infant and Young Child Feeding is essential for promoting optimal growth, development and survival during the critical early years of life. Improper feeding habits substantially contribute to malnutrition, resulting in stunting, wasting and high child death rates. Medical interns, as future healthcare providers, are essential in promoting optimal IYCF practices. This study aimed to evaluate the knowledge, attitudes and Approach of medical interns in Tamil Nadu about Infant and Young Child Feeding. A cross sectional study was conducted among 970 medical interns of various government, self-financing and private medical colleges in Tamil Nadu. Exponential Non-Discriminative Snowball sampling was employed to collect the data. A semi structured validated questionnaire to assess the knowledge, attitude and practice of Infant and Young Child Feeding, was distributed via online messaging services using Google forms. The data was analysed using Jamovi. The total participants were 970 medical interns with mean age 23.73±1.35. The study reveals Good knowledge (60.52%), positive attitudes (52.89%) and suboptimal practices (52.68%) regarding IYCF among medical interns in Tamil Nadu. Significant association between gender and KAP scores, with females performing better across all domains. Marital status was positively associated with knowledge. Integrating IYCF-focused modules, practical workshops and digital learning tools into medical education, future healthcare providers can be better prepared to promote optimal feeding practice during the first 2 years of a child's life, contributing to improved child health outcomes in India.

Key Words: Complementary feeding, Exclusive breastfeeding, Infant Nutrition, IYCF practices, Malnutrition, Medical interns.

Introduction:

A child's optimal growth and development largely depend on adequate nutrition during the first two years of life [1]. Yet malnutrition remains a leading cause of child mortality, contributing to roughly 45% of all child deaths worldwide. This encompasses undernutrition (wasting, stunting and underweight), micronutrient deficiencies and overnutrition (overweight or obesity) [2]. Poor infant and young child feeding practices are widespread: globally, only about 37% of infants are exclusively breastfed. These suboptimal practices contribute significantly to childhood malnutrition, with an estimated 149 million children under five stunted, 45 million wasted, and 37 million overweight as of 2022 [2,3]. Only a small proportion of children are provided with complementary foods that meet the standards of nutritional adequacy and safety. In numerous countries, fewer than 25% of infants aged 6 to 23 months achieve the recommended levels of dietary diversity and feeding frequency appropriate for their developmental stage [4].

In response to these challenges, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) established the Infant and Young Child Feeding (IYCF) initiative to promote optimal feeding practices [1]. IYCF outlines a set of essential nutritional practices aimed at improving the survival, growth, and development of infants and young children. Its core recommendations include exclusive breastfeeding for the first six months of life, followed by the timely introduction of safe, nutrient-rich complementary foods while continuing breastfeeding up to two years of age or beyond [5].

Despite global efforts, malnutrition remains a serious public health issue in India. The 2024 Global Hunger Index ranks India 105th out of 127 countries, reflecting a severe hunger situation. The country also has the world's highest child wasting rate (around 18.7%) and a high prevalence of stunting (approximately 35.5% of children under five), indicating widespread chronic undernutrition [6,7].

Trends in infant and young child feeding practices in India show some progress alongside persistent gaps. Recent National Family Health Survey (NFHS) data indicate that exclusive breastfeeding rates improved from about 55% (NFHS-4) to 64% (NFHS-5), although the proportion of newborns who are breastfed within the first hour of birth has remained unchanged [1,8]. Complementary feeding practices are still suboptimal: only about 43% of infants aged 6–8 months receive solid or semi-solid foods in addition to breast milk [8,9]. On a positive note, around 89% of children aged 12–23 months continue to be breastfed into their second year of life while also receiving appropriate complementary foods [8,10].

In Tamil Nadu, the MAA (Mother's Absolute Affection) was initiated, which supports breastfeeding and appropriate Infant and Young Child Feeding (IYCF) practices. It promotes optimum lactation management via educated healthcare professionals, awareness initiatives, and the execution of Baby-Friendly Hospital Initiatives to enhance child nutrition and survival rates. Thus, emphasizing the importance of training healthcare providers in combating malnutrition [11].

The successful implementation of IYCF guidelines relies on the competence of healthcare providers, especially medical interns who will become future physicians [12,13]. However, there is limited information about the knowledge, attitudes, and practices of medical interns in Tamil Nadu regarding IYCF. Recognizing this gap, the present study aimed to assess the IYCF-related knowledge, attitudes, and practices of medical interns in Tamil Nadu. Insights from this research could help shape targeted training programs for interns, ultimately improving child health outcomes while strengthening primary healthcare services in the region.

Materials and Methods

A cross-sectional study was conducted from November 2024 to May 2025, targeting medical interns from various government, self-financing, and private medical colleges across Tamil Nadu. Medical interns aged 18 years and above, affiliated with Tamil Nadu medical institutions, were included in the study. Interns from outside Tamil Nadu were excluded.

The required sample size was calculated based on previous findings by Sudarsanan et al. (2020) from Chennai, which reported an overall knowledge prevalence of 71.2% among medical interns [14]. Using the standard sample size calculation formula with a 95% confidence interval and a 3% margin of error, a final sample size of 970 participants was determined.

Exponential Non-Discriminative Snowball sampling was employed to achieve the required sample size. Tamil Nadu has over 74 medical colleges as of 2024, with each college having a minimum of 100 medical interns [15]. The first 100 interns were selected from our medical college and the rest of the participants from various other colleges across Tamil Nadu participated in the study after giving consent. Data collection was stopped when the final sample size was reached.

Ethical clearance for this study was obtained from the Institutional Ethics Committee (Reference number: MMCH&RI IEC/PG/10/NOV/24), and informed consent was secured from all participants before data collection commenced.

Data were collected using a validated, semi-structured questionnaire developed by Sudarsanan et al. (2020) [14]. This questionnaire has good internal consistency with Cronbach's alpha ~0.74 for knowledge, 0.70 for attitude, and 0.79 for practice. The questionnaire assesses the participants' knowledge (13 multiple-choice questions), attitudes (12 yes/no questions), and anticipated practices (7 multiple-choice questions) regarding IYCF. The questionnaire was administered online using Google Forms, and the link was disseminated via various messaging platforms.

Responses were collected and exported into an Excel file. Descriptive and inferential analyses were performed using Jamovi software (version 2.6). Frequencies, percentages, means and standard deviations were summarized for demographic and KAP scores. T-tests and ANOVA examined differences in continuous variables, while Chi-square tests assessed categorical variables, with a significance threshold set at $p < 0.05$.

For scoring, each correct answer was allocated one point. Thus, maximum possible scores were 13 for knowledge, 12 for attitude, and 7 for practice. Participants scoring above the mean in each category were classified as demonstrating "good" levels of knowledge, attitude and practice, respectively, facilitating clear interpretation of participants' overall competency in IYCF practices.

Results:

The total participants was 970 medical interns with a mean age of 23.73 ± 1.35 . Among them, 597 individuals (61.5%) were females and 373 (38.5%) were males. The majority of participants were unmarried (99.1%) and 66.8% resided in urban areas, while 33.2% were from rural settings. Regarding the type of medical college, 39.2%

were from government institutions, 29.0% from deemed universities and 27.5% from private colleges. Table 1 shows the sociodemographic characteristics of the study participants.

Table 1: Socio-demographic characteristics (n=970)

Variable	Category	n (%)
Gender	Males	373 (38.5%)
	Females	597 (61.5%)
Marital status	Married	9 (0.9%)
	Unmarried	961 (99.1%)
Place of residence	Rural	322 (33.2%)
	Urban	648 (66.8%)
Medical college type	Government	322 (33.2%)
	Private	380 (39.2%)
	Deemed	268 (27.6%)

Table 2 shows the Exposure and training related to Infant and young child feeding practice. Among the interns, 36.4% were in the mid-phase, 36.3% in the end-phase, and 27.3% in the beginning phase of the internship. Most (82.6%) had prior pediatric/obstetric and community postings, while only 13.6% attended IYCF workshops. Nearly half (49.3%) occasionally interacted with nursing mothers, and 52.7% had personal caregiving experience. The primary IYCF information sources were faculty (54.2%), textbooks (35.2%), and online platforms (10.6%).

Table 2: Exposure and Training Related to Infant and Young Child Feeding (IYCF) (n=970)

Variable	Category	n (%)
Participation in IYCF Workshops	Yes	132 (13.6%)
	No	836 (86.4%)
Previous Exposure to Pediatrics /Obstetrics and Community Medicine	Yes	801 (82.6%)
	No	169 (17.4%)
Personal Involvement in Infant Caregiving	Yes	511 (52.7%)
	No	459 (47.3%)
Frequency of Interaction with Lactating Mothers	Often	163 (16.8%)
	Sometimes	478 (49.3%)
	Rarely	329 (33.9%)
Primary source of IYCF information	Faculty	526 (54.2%)
	Online platform	103 (10.6%)
	Text book	341 (35.2%)

Table 3 shows the mean KAP Score. The mean knowledge score was 9.05 ± 1.80 (range: 4–13), while the mean attitude score was 9.69 ± 1.55 (range: 5–12). The practice score averaged 4.63 ± 1.33 (range: 1–7).

Table 3: Knowledge, Attitude, and Practice (KAP) Scores (n=970)

Variable	Mean $\pm$ SD	Minimum score	Maximum score
Knowledge score	9.05 $\pm$ 1.80	4	13
Attitude score	9.69 $\pm$ 1.55	5	12
Practice score	4.63 $\pm$ 1.33	1	7

Out of 970 participants, concerning knowledge, 60.52% had scored above the mean value, indicating good knowledge, and 39.48% scored below the mean, indicating poor knowledge. Regarding attitude, 52.89% of the participants were classified as having a good attitude, whereas 47.11% demonstrated a poor attitude. In terms of practice, 52.68% of participants scored above the mean and were considered to have good practices, while 47.32% scored below the mean, indicating poor practice related to Infant and Young Child Feeding (IYCF). Figure 1 shows the KAP score of Infant and young child feeding practice among study participants.

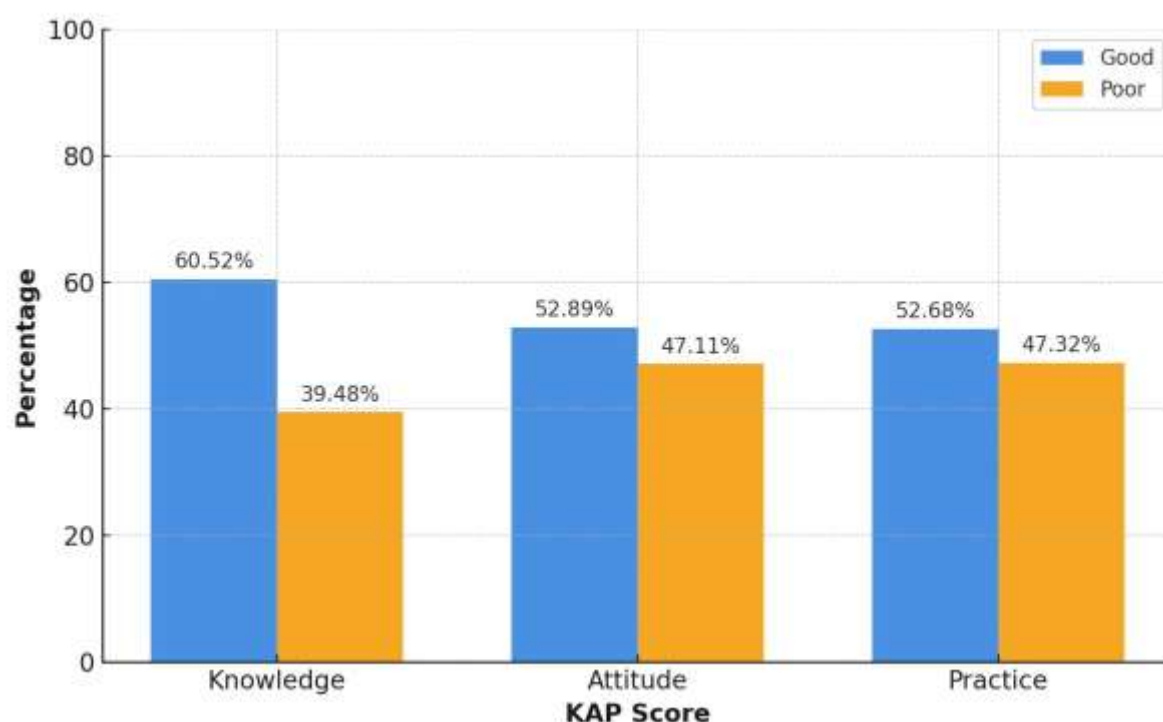


Figure 1: KAP score of IYCF of the participants (n=970)

Table 4 shows the Comparison of KAP along with sociodemographic variables of the participants. There is a significant association between gender and KAP scores, with females performing better across all domains. Marital status was positively associated with knowledge alone.

Table 4: Comparison of KAP with sociodemographic variables (n=970)

Variables	n (%)	Mean $\pm$ SD	t Value	p Value
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Knowledge	Male	373 (38.5%)	8.83±1.71	3.05	0.002*
	Female	597 (61.5%)	9.19±1.92		
Attitude	Male	373 (38.5%)	9.50±1.78	2.97	0.003*
	Female	597 (61.5%)	9.80±1.38		
Practice	Male	373 (38.5%)	4.36±1.38	5.13	<0.001**
	Female	597 (61.5%)	4.80±1.27		
Knowledge	Married	9 (0.9%)	10.56±1.94	2.518	0.012*
	Unmarried	961 (99.1%)	9.04±1.80		
Attitude	Married	9 (0.9%)	9.33±2.12	- 0.688	0.491
	Unmarried	961 (99.1%)	9.69±1.55		
Practice	Married	9 (0.9%)	4.44±1.55	-0.420	0.674
	Unmarried	961 (99.1%)	4.63±1.33		

*Denotes Statistical significance of < 0.05, Independent t-test was performed.

Table 5 shows there was no statistically significant difference in Knowledge, Attitude, or Practice (KAP) scores across in varrious types of medical college.

Table 5: Comparison of KAP by Medical college type:

	Variables	n (%)	Mean ±SD	X²	p Value
Knowledge	Deemed	322 (33.2%)	9.25±1.82	5.80	0.122
	Government	380 (39.2%)	8.94±1.76		
	Private	268 (27.6%)	8.89±1.77		
Attitude	Deemed	322 (33.2%)	9.73±1.63	1.27	0.737
	Government	380 (39.2%)	9.63±1.72		
	Private	268 (27.6%)	9.72±1.67		
Practice	Deemed	322 (33.2%)	4.58±1.28	3.53	0.317
	Government	380 (39.2%)	4.68±1.30		
	Private	268 (27.6%)	4.63±1.45		

*Denotes Statistical significance of < 0.05, One- Way ANOVA was performed.

Table 6 shows there was no statistically significant difference in Knowledge, Attitude, or Practice (KAP) scores across the different phases of internship or based on the frequency of interaction with lactating mothers (p > 0.05), indicating that these factors had minimal influence on the IYCF-related competencies of medical interns.

Table 6: Comparison of KAP by current phase of internship and frequency of interaction with lactating mother during internship:

Comparison of KAP by current phase of internship:				
	Variables	Mean	SD	p Value
Knowledge	Beginning Phase	9.03±1.85		0.214
	Mid Phase	9.06±1.80		
	End Phase	9.06±1.78		
Attitude	Beginning Phase	9.62±1.59		0.441
	Mid Phase	9.70±1.57		
	End Phase	9.72±1.50		
Practice	Beginning Phase	4.64±1.36		0.365
	Mid Phase	4.65±1.30		
	End Phase	4.60±1.33		
Comparison of KAP by frequency of interaction with lactating mother during internship:				
Knowledge	Often	9.02 ±1.85		0.861
	Sometimes	9.09±1.77		
	Rarely	9.02±1.83		
Attitude	Often	9.65±1.73		0.749
	Sometimes	9.73±1.49		
	Rarely	9.65±1.55		
Practice	Often	4.56±1.54		0.676
	Sometimes	4.62±1.29		
	Rarely	4.68±1.27		

*Denotes Statistical significance of < 0.05,
One- Way ANOVA was performed.

Table 7 shows the correlation matrix of KAP demonstrates weak yet statistically significant positive associations ($p < 0.001$). This indicates that while knowledge, attitude and practice are interconnected, the strength of these associations is constrained; enhancements in one area are only marginally linked to advancements in the others.

Table 7: Correlation matrix of KAP

	Pearson's (r)	p value
Knowledge and Attitude	0.185	<0.001**

Knowledge and Practice	0.160	<0.001**
Attitude and practice	0.180	<0.001**

Discussion:

Our cross-sectional survey of 970 medical interns in Tamil Nadu revealed a moderate overall competency in Infant and Young Child Feeding (IYCF). About 60.5% of interns scored above the mean in knowledge, indicating a reasonable grasp of IYCF facts, while the remaining 39.5% had notable knowledge gaps. Similarly, just over half of the interns demonstrated positive attitudes (52.9%) toward optimal infant feeding, and roughly with the same proportion (52.7%) reported good practices in this domain. These patterns suggest that nearly half of future doctors may lack confidence or consistency in applying IYCF guidelines, which is concerning given their role in advising new mothers. Indeed, we observed only weak correlations between knowledge, attitude and practice scores, highlighting that possessing factual knowledge or a supportive attitude does not automatically translate into effective practical skills. For instance, many interns were aware of the correct recommendations yet did not frequently engage in counselling or assisting mothers, indicating a gap between what is known and what is done in clinical practice.

Several factors explain this knowledge-practice gap. Female interns significantly outperformed their male counterparts in all KAP domains (mean scores for knowledge, attitude and practice were higher among women; $p < 0.01$), suggesting that female interns may have greater interest or engagement in maternal-child health topics. While the reasons are unclear, it is possible that female interns who may empathize more with breastfeeding challenges pay closer attention during paediatrics/obstetrics postings. Another notable (though small) subgroup was married interns, who had higher knowledge scores than unmarried peers (mean 10.56 vs 9.04; $p = 0.012$). This could reflect personal experience with child care or a greater motivation to learn infant feeding due to real-life relevance; even though over 99% of our sample was unmarried, this finding must be viewed with caution. Importantly, we found no significant differences in KAP by the type of medical college (government, private or deemed university), implying that current IYCF teaching is uniformly implemented (or uniformly lacking) across institutions. Overall, the interns in our study exhibited moderate knowledge and generally positive attitudes, yet a large subset lacked sufficient proficiency in the practical application of IYCF principles.

When comparing our results with similar studies, our study participants' performance appears modest. An earlier study on Chennai medical interns by Sudarsanan et al [14]. reported substantially higher KAP scores (knowledge 70.4%, attitude 79.7%, practice 63.2%). This suggests that interns in that single-city study were better prepared, possibly due to more intensive local training or heightened awareness. Likewise, Gode et al [16]. found that interns in a North Maharashtra college had stronger attitudes (over 86% with good attitude) and better knowledge (~64% with good knowledge) than our interns. Notably, Gode's study was smaller and specific to one institution, which might have benefited from a targeted curriculum or mentoring culture emphasizing IYCF. Our findings are closer to those of Satyavani et al [17]. in Andhra Pradesh, who documented an overall correct knowledge of 69.2% among interns. In that hospital-based survey, students showed excellent awareness of fundamental breastfeeding concepts. For example, 87% were aware that the duration of exclusive breastfeeding is for 6 months, and 99% recognized the importance of colostrum, yet they still had some knowledge gaps in some areas (e.g. managing breastfeeding during maternal illness, or knowing appropriate complementary feeding practices) that require targeted instruction. This aligns with our observation that essential messages are being learned, but finer points of IYCF sometimes slip through without focused teaching.

Another study from Mangalore, India Nathan et al [18]. is illustrative: with dedicated teaching, 88% of interns knew the correct timing for introducing complementary foods at six months, and over 80% understood appropriate food types, feeding frequency, and the risks of early or delayed weaning. This shows that very high levels of competence are attainable when IYCF is emphasized. The challenge is to replicate such successes broadly through standardized improvements in medical training.

Some differences across studies could stem from methodology. Our classification of "good" knowledge or practice was based on scoring above the sample mean, which is a relative benchmark. In contrast, Satyavani et al [17]. used item-specific assessments and found very high proficiency on certain items despite a moderate score. Thus, measurement approaches can influence reported competency levels. Nonetheless, the consistently higher attitude scores in other studies (e.g. 80–86% good attitude in the Sudarsanan and Gode study) tell us that certain environments or teaching methods instil greater enthusiasm for IYCF than others. It is possible that our statewide sample, encompassing many colleges, included interns who received only perfunctory IYCF training, whereas a focused program in select institutions yielded more optimistic attitudes.

International comparisons underscore similar challenges and some encouraging trends. A study in Pakistan by Memon et al [19]. revealed that newly graduated doctors (“house officers”) significantly outperformed senior general practitioners in IYCF knowledge (76% vs 50%, demonstrating adequate knowledge). This suggests that recent medical education has improved IYCF awareness, likely through updated curricula, and that without ongoing education, knowledge may wane over time. Our interns, being fresh, similarly have the advantage of recency; we must ensure this advantage is not lost and is translated into practice.

In Egypt, an assessment of physicians and nurses by Mohamed et al [20]. found a comparable pattern to ours – about 67% had sufficient knowledge, but only 52% achieved good practice. Interestingly, that study noted that Egyptian providers often learned about infant feeding through personal experience rather than formal training. In contrast, our interns cited faculty teaching and textbooks as their primary sources of information. This difference highlights that hands-on experience (either personal or through practical training) is crucial; relying solely on didactic teaching may leave graduates theoretically knowledgeable but unprepared practically. Table 8: shows the Comparison of KAP of IYCF across various articles (2017 to 2024).

Table 8: Comparison of KAP of IYCF across various articles (2017 to 2024).

Study	Study population	Good knowledge	Good attitude	Good practices
The present study	Medical interns	60.52%	52.89%	52.68%
Sudarsanan H et al[14]	Medical interns	70.4%	79.7%	63.2%
Gode et al[16]	Medical interns	64.18%	86.67%	68.4%
Satyavani A et al[17]	Medical and Nursing students	69.2%	-	-
Nathan SR et al[18]	Medical Interns	79.4%	84.1%	-
Memon Y et al[19]	Doctors	76%	-	-
Mohamed H et al[20]	Medical staff	67.03%	60.62%	52.17%

Conclusion:

The current study demonstrates that medical interns in Tamil Nadu possess a commendable level of knowledge and generally hold positive attitudes toward Infant and Young Child Feeding (IYCF) practices. However, a clear gap exists between their theoretical understanding and the practical implementation of these practices. A significant association was found between gender and KAP scores, with female interns outperforming their male counterparts across all domains. Furthermore, marital status showed a positive correlation with knowledge, indicating that personal life experiences may contribute to greater awareness. Although many interns appreciate the importance of optimal feeding during the first two years of life and are willing to support it, their limited practical exposure hampers their ability to effectively guide mothers and caregivers. These findings highlight the need to enhance medical education by integrating targeted IYCF training through hands-on workshops, clinical simulations and direct field experiences during pediatric and community medicine postings.

Implications:

The findings underscore a significant disconnect between medical interns' knowledge and their ability to apply IYCF practices in clinical settings. Although they exhibit positive attitudes and a sound theoretical understanding,

their lack of practical experience may hinder their ability to support infant nutrition. Incorporating hands-on IYCF training through skill-based sessions, digital tools and real-life case exposure-into the medical curriculum is crucial. Enhancing these competencies will enable future doctors to educate caregivers better, manage feeding-related disorders and advocate for appropriate early childhood nutrition. This, in turn, can play a vital role in lowering malnutrition rates and improving child health outcomes across India.

Recommendations:

Include comprehensive IYCF modules in the undergraduate medical curriculum and internship training. Organize practical workshops and skill sessions on infant feeding for medical students and interns. Making such workshops a mandatory part of the internship would ensure wider participation.

Strengths and Limitations:

Foremost, it surveyed a large and diverse sample of interns across Tamil Nadu, covering multiple institutions (government, private, and deemed universities) and including participants from both urban and rural backgrounds. This broad representation improves the generalizability of our findings to other settings and provides a more comprehensive picture of the current state of IYCF training in medical colleges. We also employed a previously validated questionnaire with good internal consistency, add credibility to our results. Since it is a cross-sectional study limits to establish the causality of the poor knowledge and practices of IYCF. Cross-sectional study design was adapted and our data are based on self-reported responses to a questionnaire and thus may be subject to response biases.

Ethical approval:

The study was approved by the Institutional Ethics Committee (Reference number: MMCH&RI IEC/PG/10/NOV/24).

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Conflict of Interest

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References:

- [1]. Sharma, M., Gaidhane, A., Choudhari SG., 2024, A Review of Infant and Young Child Feeding Practices and Their Challenges in India, *Cureus.*, 16(8):e66499, doi: 10.7759/cureus.66499, <https://pubmed.ncbi.nlm.nih.gov/39246879/>.
- [2]. World Health Organization., 2023, Malnutrition in children [Internet]., Available from: <https://www.who.int/data/nutrition/nlis/info/malnutrition-in-children>.
- [3]. Nutritionnews.abbott., 2024, What Is Malnutrition? [Internet]., Available from: <https://www.nutritionnews.abbott/malnutrition/global-issue/what-is-malnutrition/>
- [4]. World Health Organization., 2023, Infant and young child feeding [Internet]., [cited 2025 Jun 23], Available from: <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>
- [5]. Bentley, A., Das, S., Alcock, G., Shah More, N., Pantvaidya, S., Osrin, D., 2015 May, Malnutrition and infant and young child feeding in informal settlements in Mumbai, India: findings from a census, *Food Sci Nutr.*, 3(3):257–71, <https://pubmed.ncbi.nlm.nih.gov/25988001/>.
- [6]. India - Global Hunger Index (GHI)., 2024, peer-reviewed annual publication designed to comprehensively measure and track hunger at the global, regional, and country levels [Internet]., [cited 2025 Jun 5], Available from: <https://www.globalhungerindex.org/india.html>.
- [7]. Outreach International., 2024, Malnutrition in India: Challenges & Community-Led Solutions - Outreach International [Internet]., [cited 2025 Jun 5], Available from: <https://outreach-international.org/blog/malnutrition-in-india/>.

- [8]. Government of India., 2022, NATIONAL FAMILY HEALTH SURVEY (NFHS-5) [Internet]., Available from: <https://dhsprogram.com/pubs/pdf/FR375/FR375.pdf>.
- [9]. Yadav, A., Rawat, S., Shastri, S., 2024, An epidemiological study of the determinants and patterns of complementary feeding practices among children of 6-24 months of age group, J Family Med Prim Care., 13(2):717–22, <https://pubmed.ncbi.nlm.nih.gov/38605794/>.
- [10]. Jeyakumar, A., Babar, P., Menon, P., et al., 2022, Is Infant and Young Child-feeding (IYCF) a potential double-duty strategy to prevent the double burden of malnutrition among children at the critical age? Evidence of association from urban slums in Pune, Maharashtra, India, PLoS One., 17(12):e0278152, <https://pubmed.ncbi.nlm.nih.gov/36455056/>.
- [11]. Govt. of Tamil Nadu., 2016, Mother's Absolute Affection (MAA) program/Baby friendly Hospital initiative (BFHI) | National Health Mission Tamil Nadu, Department of Health & Family Welfare Govt. of Tamil Nadu, India [Internet]., [cited 2025 Jun 23], Available from: <https://www.nhm.tn.gov.in/en/nhm-programsrmncha/mothers-absolute-affection-maa-programbaby-friendly-hospital-initiative-bfhi>.
- [12]. Infant and Young Child Feeding., 2009, Model Chapter for Textbooks for Medical Students and Allied Health Professionals - PubMed [Internet]., [cited 2025 Jun 5], Available from: <https://pubmed.ncbi.nlm.nih.gov/23905206/>.
- [13]. UNICEF., 2023, Learning outcomes [Internet], Baby Friendly Initiative, [cited 2025 Jun 5], Available from: <https://www.unicef.org.uk/babyfriendly/accreditation/universities/learning-outcomes/>.
- [14]. Sudarsanan, H., Sanchana, A., VipanchiKamepalli, S., Kumutha, J., 2020, Knowledge, Attitude And Practice Of Infant Feeding Practices Among Medical Students., Europ. J. Mol. Clin. Med., 7:3644-54. https://www.academia.edu/79488013/Knowledge_Attitude_And_Practice_Of_Infant_Feeding_Practices_Among_Medical_Students.
- [15]. Narayan, P., 2024, Tamil Nadu set to get three more private medical colleges [Internet]. The Times of India, Times Of India; Available from: <https://timesofindia.indiatimes.com/city/chennai/tn-to-get-three-new-private-medical-colleges/articleshow/112149533.cms>.
- [16]. Gode, V., Jain, S., Parahsare, P., Mehkarkar, N., Singh, A., 2023, Assessment of Infant Feeding Knowledge, Attitudes, and Practices among Medical Students, Cross-sectional Study in Medical College in North Maharashtra State of India. Journal of Research in Medical and Interpathy Sciences., 1(2):56–61, <https://9vom.in/journals/index.php/remedis/article/view/9>.
- [17]. SAS, Publisher., 2017, Knowledge of Medical and Nursing Students about Infant and Young Child Feeding (IYCF) Practices – A Hospital Based Study at Government General Hospital, Kakinada, Andhra Pradesh [Internet], [cited 2025 Jun 5], Available from: <https://www.saspublishers.com/article/6858/>.
- [18]. Nathan, S. R., Nuwera, H., Sudhir, S., Shamshu, R., 2020, Knowledge and attitude regarding complementary feeding practices among medical interns in Yenepoya medical college, Mangalore. Int J Contemp Pediatr [Internet], [cited 2025 Jun. 5], 7(11):2137-41, Available from: <https://www.ijpediatrics.com/index.php/ijcp/article/view/3756>.
- [19]. Memon, Y., Memon, S., Chohan, M. N., 2022, Awareness and Knowledge Regarding Infant and Young Child Feeding (IYCF) Practice among House Officers Versus General Practitioner, Pakistan Journal of Medical & Health Sciences., 16(04):661–661, <https://pjmhsnline.com/index.php/pjmhs/article/view/948>.
- [20]. Weshahy, H. M. F., Rashad, M. M., Abul-fadl, M., Mohammed, A. A. A., 2019, Knowledge, Attitude and Practice among medical staff towards breastfeeding management., 22(46), https://azjp.journals.ekb.eg/article_70272.html.