

CLASSROOM TO COMMUNITY: A GIBBS' REFLECTIVE ANALYSIS OF THE FAMILY ADOPTION PROGRAM - A MIXED-METHOD STUDY

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Abstract

Background: Gibbs' reflective cycle is a well-known theoretical model for reflective practice that has been shown to be effective in medical education. The cycle consists of six stages where practitioners reflect on their experiences, examine their practice, and identify ways to improve at each stage. The reflective cycle can help medical students think deeply about their experiences, gain insights into their practice, develop a deeper understanding of their profession, and devise strategies for improving their skills and knowledge. **Materials and Methods:** This study evaluated the effectiveness of Gibbs' reflective cycle in assessing the experiences of medical students who participated in the Family Adoption Program (FAP) and visited the Rural Health Treatment Centre (RHTC). Responses were collected using a Google form-based questionnaire shared digitally among all participants after completing their visits. A total of 150 medical students who attended the FAP/RHTC visits were invited to submit their responses based on their experiences using Gibbs' reflective cycle. Additionally, in-depth interviews were conducted with a subset of participants to gain deeper insights into their reflections and experiences. **Results:** A total of 97 responses were received, representing a response rate of 64.5%. The study found that Gibbs' reflective cycle is an effective method for assessing medical students' experiences post FAP/RHTC visits. Students reported gaining a better understanding of the sociocultural, habitual, economic, and practical considerations that must be addressed in medical practice through reflection. In-depth interviews further highlighted the development of empathy, communication skills, and professional growth among the students. **Conclusion:** Gibbs' reflective cycle is a valuable tool for medical educators as it allows them to identify areas of practice that need more attention and develop more effective teaching strategies. The cycle can also be used to assess the efficacy of existing strategies and ensure they are meeting the needs of medical students effectively. The addition of in-depth interviews provided a richer understanding of the students' reflections, underscoring the importance of incorporating qualitative methods in medical education research.

INTRODUCTION

In the context of learning, Boud Keogh and Walker in 1985 defined 'reflection' as a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and

appreciation.^[1] Reflective learning allows the memory of a past event to foster critical thinking abilities and improve present and future behaviours by analysing the lived experience. Exploring experiences helps people become more aware of their behaviour, which is the goal of reflective learning. Individual experiences, convictions,

standards, attitudes, presumptions and anxieties, as well as self-examination are all part of this type of education, which is built on learning. Many learning models were introduced in the mid-1990s. Driscoll's model was based on three key questions posed by Terry Borton in the 1970s: What? So what? So, what now?

Based on learning theories, this model focuses on developing understanding through actual experiences and includes four key stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation.^[2] There are many reflective cycle models that can be used to learn about self-reflection and help one to question oneself about what we have learned. Gibbs Reflective Cycle (1998) is a well-known cyclical model of reflection that guides you through six stages of exploring an experience as description, feelings, evaluation, analysis, conclusion, and action plan.^[3]

At its core, the Gibbs reflective cycle promotes experience learning through a methodical debriefing procedure. The reflective cycle allows us to gain a better understanding, which leads to a section where we can create and experiment with newer ideas on the same topic, allowing students to gain in-depth knowledge and learning experience. This type of learning assists us in developing the habit of questioning and seeing things from a different perspective. The use of such reflective writing and learning tools for health care professional improve the analysis and correction of errors, thereby indirectly improving the quality of health care services. With this context, the purpose of this qualitative study was to assess the effectiveness of Gibb's reflective cycle following family adoption programme and RHTC visits by fresher medical undergraduate students in a tertiary care institute.

MATERIALS AND METHODS

As a part of their medical undergraduate curriculum, a total of 150 first-year medical students from a tertiary care teaching institution were sensitized to the Family Adoption Program (FAP) and Rural Health Training Centre (RHTC) visits. Under supervision, students were divided into two groups (n=75 per group in FAP/RHTC), and one group was taken to a rural village for the FAP visit, while the other group was taken to the RHTC site. Prior to the visit, the students were briefed on the necessity of FAP inclusion in the medical curriculum by the National Medical Council and given a lecture on the professional manner and ethics during such visits. Then, each student was given a questionnaire with three sections: socio-demographic profile, environmental conditions, and dietary habits. In both groups (FAP and RHTC), students were further subdivided into smaller teams of five members. All students were able to obtain the necessary information during the field trip, and the

overall purpose of such a trip was accomplished. Each team then presented their FAP/RHTC experience using the reflective cycle method in the classroom. In addition, the reflection of each student was evaluated through digital responses obtained by filling out a Google form with the key elements outlined in Gibbs' Reflective Cycle. The Google form was distributed to 150 students, of whom 97 responded enthusiastically. The necessary data was collected and analyzed using per verbatim languages as such from the students.

To gain deeper insights into the students' experiences, in-depth interviews were conducted with a subset of the participants. Three students from the FAP group and three students from the RHTC group were selected for these interviews. These interviews aimed to explore their perceptions, emotional responses, and reflections on their visits in greater detail. The data from these interviews were transcribed and analyzed to identify common themes and insights.

RESULTS

The response rate for submitting Google form answers was 64.5% out of 150 students. The submitted responses were analyzed qualitatively to assess their comprehension knowledge. The descriptive components of the obtained results were summarized using Gibb's Reflective Cycle, which consisted of six stages to assess student's reflection, as follows.

- a) Description of the experience
- b) Feelings and thoughts about the experience
- c) Evaluation of the experience, both good and bad
- d) Analysis to make sense of the situation
- e) Conclusion about what you learned and what you could have done differently
- f) Action plan for how you would deal with similar situations in the future, or general changes you might find appropriate.

Each component's descriptive nature was evaluated qualitatively under the following headings.

Gibb's Reflective Cycle Analysis

a. Description of the Experience

Family Adoption Program (FAP) Group

In the FAP group, it was found that the majority of the students had the most relevant experience and exposure to the rural environment. The students described it as an entirely new experience. For the first time, the students were exposed to the importance of empathy as part of professional learning, which most described as a wonderful experience. The majority of students understood that the rural population lacked access to basic healthcare. Because of their first exposure to a field setup, the students realized the importance of communication skills and soft skills that are required in medical practice. It was also discovered that almost all of the students felt that the rural

population was cooperative in answering their questionnaire and were treated humanely. When approached at their door, all participants readily provided general information, environmental conditions, and health status.

Rural Health Treatment Centre (RHTC) Group

The RHTC group, on the other hand, was exposed to various medical specialties and treatments, drugs available, radiological procedures performed, and healthcare setup. The RHTC group found their interactions with the medical and para-medical staff to be extremely beneficial in broadening their understanding of the delivery of healthcare services.

b. Feelings and Thoughts About the Experience FAP Group

In the FAP group, it was found that the majority had a positive experience and understood the values of family in society as well as the interaction of environmental factors with general health of any given individual or family as a whole. Patience and active listening were discovered to be two of the most important requirements during such visits. It was also felt that they were the population group with the greatest need for healthcare. The importance of confidence, personality, communication method, and approach to individual/family are some of the powerful modifiers influencing rural population health-seeking behavior. The students were able to comprehend the village population's healthcare needs and potential healthcare issues.

RHTC Group

The interaction with the para-medical fraternity, including nursing and pharmacy staff, provided the RHTC group with a rich experience. The majority of them perceived the interaction to be primarily professional in nature. They were exposed to a real-time patient management setup, which helped them understand their role in the future with good medical practices. They had also witnessed a variety of laboratory analyses performed at the RHTC level.

c. Evaluation of the Experience

Students who had participated in both groups reported a diverse range of positive and negative experiences. The villagers' kindness and ability to answer all questions asked while sparing time were among the positive experiences submitted. The most important findings were differences in cultural and environmental factors, as well as factors influencing an individual's health-seeking behavior. Furthermore, the visit had taught an important aspect of healthcare provision, which is 'TEAM' work. The rural population expressed their gratitude for such visits to improve their health standards through primary/primordial prevention, and most of the students felt that the rural population expressed their gratitude for such visits to improve their health standards through primary/primordial prevention.

As part of health research, the students believe that such programs will be more effective in providing and assessing vaccination coverage and health program coverage. However, irritability to answer

questionnaires, inability to give complete answers, lack of interest, reluctance of rural people towards medical practitioners, lack of maintenance of health records, lack of knowledge on potential health hazards, and non-cooperation in a few cases were some of the negative experiences. The main disadvantages, according to medical students, were a lack of experience and knowledge, as well as less time to communicate because they were new to the community-based healthcare approach. The majority of students also observed poor hygiene practices and a lack of awareness in healthy lifestyle practices among the rural population. Despite modernization, the rural population has a strong attachment to cultural beliefs and their relationship with health approaches.

d. Analysis to Make Sense of the Situation

The majority of students felt that they needed to improve their communication skills in medical practice. It was recognized that effective rural healthcare visits can be achieved through effective communication and an organized approach. It was also felt that in order to treat the rural population, a basic understanding of the people's environment and cultural beliefs is essential in shaping people's healthcare behavior. Most medical students recognized that there is a lack of awareness about health and health-related issues among the rural population. Despite the fact that they were able to identify some of the myths perceived by people at the community level, many students felt that they lacked the necessary knowledge as sophomores in medical school in order to advise the needy. A few students felt that it was necessary to conduct routine medical health check-ups in the form of rural camps with basic medical specialties in order to meet the needs of rural healthcare providers.

The RHTC group stated that there was a need to increase patient flow in the near future through active promotion and teamwork. They stated that more frequent health campaigns could result in increased patient work output. The RHTC group, like the FAP group, believed that it was critical to foster coordination among teammates, improve communication skills, assist in overcoming public speaking anxiety, and learn and improve the skill of active collection, analysis, and conclusion of given information or data. The RHTC was envisioned as an active health center, particularly for village residents.

e.1. Conclusion About What You Learned

The majority of the students had learned the significance of proper documentation. They realized that one of the most important factors in establishing a connection with the people during community visits was communication skills. They recognized the inherent hardships and obstacles that the rural communities are facing, as well as the barriers to their healthcare development. Many students stated that they learned the fundamentals, attitude, and discipline of a medical professional. They understood that the main reason for non-compliance

of patients towards their healthcare provider was lack of communication, which resulted in missed scheduled medical visits, further deterioration of their health conditions, and ultimately leading to loss of faith in the doctors. The RHTC group expressed strongly that they had learned the fundamental attitude and discipline of becoming a doctor in the future. The majority of them agreed that the RHTC is a boon to the rural community in terms of managing common day-to-day health problems. They perceived to have exposed themselves to be able to perform a quick survey on the patients, particularly on how to deal with emergency situations. They also understood the significance of first aid and vaccination, as well as the roles of each healthcare provider at the ground level of healthcare delivery. Overall, the RHTC group reflected that they have learned the different aspects of the medical profession through a systematic approach which provided them the opportunity of interacting with the various healthcare providers and patients at the center.

e. 2. Conclusion About What You Could Have Done Differently

The responses for expressing what could have been done differently varied greatly. The majority of them believed that they needed more time to interact with the families. Due to the lack of medical knowledge being first year students, they were unable to answer few questions and concerns raised by the villagers during the visit. The expressed needs of the students were that they require carrying the basic armamentarium for general physical examinations rather than just questionnaire-based health surveys and assessments. The majority of the students stated that they were unaware of the medical conditions and their complications including the therapeutic and adverse effects of various medications, and thus felt that they had done less justification for their visits in their first-time exposure. The RHTC group recognised the need to provide awareness of the health care services available at the center among the local population in order to significantly increase patients' health-seeking behaviour. Furthermore, they perceived the need for specialty medical services, at least on set days to avail services to the most vulnerable members of the community. There was a perceived need to conduct regular camps at the RHTC level for disease prevention and risk factor reduction which will aid in lowering the disease burden in the community.

f. Action Plan for Future Situations

The fresher graduates felt that they should have basic knowledge about the common health conditions like Diabetes, Hypertension, etc., and their clinical assessment which will be useful during the visit and be more beneficial to the rural community. Most of the students felt that they lacked the adequate knowledge to actively participate in the health-related conditions of the community. None of the students were able to

provide a medical diagnosis nor proper medical advice which was actually required to be delivered during such visits. The RHTC group believed that there is a need to provide free medicines at the center level in order to achieve broad coverage of the healthcare services to the community. Significant action plans submitted by the RHTC group illustrated that significant improvement can be achieved by improvising the attitude, conduct, and communication skills of the healthcare providers towards the patients and caretakers. These minor improvements may appear insignificant when considered separately, but when executed together they will raise the standard of healthcare to the next level. They also believed that effective advertising was required to inform the people in and around the village about the health center, in addition to the home visits.

In-depth Interview Analysis

Coding Framework Table

To systematically analyze the qualitative data from the in-depth interviews, a coding framework was developed. The framework categorizes the data into higher-order themes, second-order themes, and first-order themes.

a. Awareness and Perceptions of Medical Students

Understanding of Sociocultural Factors

Medical students acknowledged the importance of understanding sociocultural factors in rural healthcare. They noted that their experiences during the FAP visits provided them with insights into the living conditions and healthcare challenges faced by rural families. One student reflected, "We visited several families and collected health data, which helped us understand their living conditions and health challenges."

Gaining Empathy and Improved Communication Skills

The visits fostered empathy and improved communication skills among the students. They described feeling a mix of empathy and frustration as they interacted with rural families. A student mentioned,

"A mother shared her struggles with accessing healthcare for her sick child, which was heartbreaking and frustrating to witness."

Students also reported that the visits were valuable in enhancing their communication skills, as they had to convey health information effectively despite language barriers.

b. Experiences as Health Educators and Service Providers

Role as Health Educators

Students found that they played a crucial role as health educators during their visits. They disseminated health information on topics such as antenatal care, childcare, hygiene, nutrition, and general health practices. One student highlighted,

"The families often asked me about their health issues and where to seek appropriate medical care."

Although they provided valuable health education, students felt they spent limited time on this due to other responsibilities, such as data collection.

Practical Experience and Professional Growth

The visits offered practical experience and contributed to professional growth. Students observed and sometimes assisted with minor healthcare tasks. However, they did not conduct advanced medical procedures due to their limited training. One student stated,

“We were taught some basic medical procedures, but during our visits, we mainly observed and collected data, as we did not have the necessary skills to provide medical treatment.”

Despite these limitations, students felt a sense of accomplishment from educating families and gaining a deeper understanding of rural healthcare challenges.

c. Challenges and Systemic Issues

Systemic Issues and Resource Limitations

Students identified several systemic issues that hindered effective healthcare delivery in rural areas. These included limited resources, inadequate infrastructure, and cultural differences. One student shared,

“Language barriers were a significant challenge, but we overcame this by working closely with local guides.”

Students also expressed frustration with the systemic healthcare issues, such as the reluctance of some community members to engage with healthcare services and the lack of medical resources.

Personal Challenges and Emotional Responses

The visits evoked a range of emotional responses among the students. Many felt anxious and uncertain about their ability to make a significant impact due to their limited medical knowledge and experience. One student expressed,

“I was anxious about how the families would perceive us and whether we could gather useful information.”

However, these challenges also highlighted the importance of empathy, cultural competence, and effective communication in healthcare.

d. Insights and Key Learnings

Insights Gained from the Visits

Students gained valuable insights into the importance of understanding sociocultural factors, developing empathy, and improving communication skills. They realized the need for a structured approach to rural healthcare that involves thorough preparation and adaptability. One student reflected, “We recognized that our visits required us to be well-prepared and flexible in our approach to effectively address the unique challenges of rural healthcare.”

Suggestions for Improvement

Students concluded that their visits were successful in terms of data collection and building rapport with the families. However, they felt that more comprehensive training and better preparation would have enhanced their effectiveness. One student suggested,

“I would spend more time preparing, particularly in learning about the local health issues and communication strategies.”

Overall, the FAP and RHTC visits provided valuable learning experiences for medical students, highlighting the need for better training and preparation to improve future rural healthcare initiatives. The insights gained from these experiences underscored the importance of empathy, cultural competence, and effective communication in healthcare.

Key Themes from FAP and RHTC Visits: A Word Cloud Analysis



This word cloud visually represents the key themes and concepts identified from the reflective narratives and in-depth interviews of medical students participating in the Family Adoption Program (FAP) and Rural Health Training Centre (RHTC) visits. The word cloud highlights the frequency of various terms, with larger words representing themes that were mentioned more often by the students. Key themes include "empathy," "communication," "healthcare," "rural," "community," and "challenges," reflecting the significant areas of learning and impact. These terms emphasize the importance of understanding sociocultural factors, developing communication skills, and recognizing the unique healthcare needs of rural populations. The visual representation underscores the holistic educational experience provided by the FAP and RHTC visits, fostering both professional and personal growth among medical students.

Table 1: Coding Framework for Qualitative Data Analysis

Higher Order Themes	Second Order Themes	First Order Themes
Experiential Learning	Emotional Responses	Anxiety, Concern, Uncertainty, Empathy, Frustration, Sadness, Humility, Gratitude

	Positive Outcomes	Enlightenment, Positive experience, Achievement
	Challenges	Language barrier, Systemic issues, Limited resources, Cultural differences
	Skills Development	Communication skills, Teamwork, Cultural competence, Adaptation, Problem-solving
Healthcare Delivery	Patient Interaction	Empathy, Sympathy, Compassion, Patient education
	Professional Insights	Healthcare accessibility, Rural health issues, Resource allocation, medical procedures
	Practical Knowledge	Data collection, Efficiency, Success
Community Engagement	Cultural Understanding	Cross-cultural competence, Socioeconomic status, social issues
	Community Involvement	Community engagement, Cooperation, Effective communication
	Educational Integration	Interprofessional collaboration, Field visits, Hands-on experiences

DISCUSSION

In the field of medicine, Gibbs' Reflective Cycle is a common teaching aid. As a form of reflective practice, it prompts students to analyse their past actions and determine what they can take away from them. This study reviewed whether Gibbs' Reflective Cycle is relevant to medical education and how it can be used to enhance the educational experience of medical students. They can benefit greatly from using Gibbs' Reflective Cycle to think critically about their learning.^[4] In doing so, it inspires students to reflect on their own experiences and to ask what they can take away from them. Students benefit from this because they acquire a more thorough comprehension of the material and a broader appreciation for the medical field as a whole. In addition, it helps students figure out what they're doing poorly and how to fix it. Medical students can benefit from increased self-awareness and career readiness by practicing with Gibbs' Reflective Cycle.^[5] The six steps that make up Gibbs' Reflective Cycle are "describe," "feel," "evaluate," "analyse," "conclude," and "act." Providing a detailed account of what happened is the first step.^[6] One should write down the situation, the events that transpired, and any other pertinent information. Finding words to describe how one feels is the second step. Students benefit from this because they are able to better understand themselves. Consider both the positive and negative aspects of the experience as you move on to step three, evaluation. The fourth stage entails reflecting on the experience and drawing conclusions about its various aspects. Fifth, take what one has learnt from the analysis and adjust as needed. The final step is to formulate a strategy for moving forward.^[7] Incorporating reflective practices into the medical classroom has been shown to increase student's motivation to learn and enhance their ability to express them articulately as described by a previous study in Thailand.^[8] Their learning is structured and consolidated. An increased focus on using reflection in education can be traced back to the realisation that new insights can only be gained by building on existing ones. To put it another way, the point of reflection is to figure out how to put ideas into

action.^[9] Reflective action is encouraged because it has been shown to help people deal with adversity. This reflective cycle method was used in this study to narratively assess the effectiveness of first time visit of fresher medical students to FAP/RHTC. The study described the contextual aspect of application of this reflective cycle in two groups of students and assessed the outcomes in relation to FAP and RHTC.

The FAP at medical schools provides numerous advantages for both students and children. It provides an opportunity for the students to gain parenting experience while still in school. This can be extremely beneficial for those considering a career in pediatrics or family medicine in future.^[10] In addition, it enables students to gain a better understanding of the difficulties associated with parenting, which can help them become better physicians. The program offers the students a loving home and the opportunity to receive education.^[11] This can be particularly advantageous for those from disadvantaged backgrounds based on the maximum responses received in this study.

While the FAP at medical schools offers numerous benefits, it also presents some obstacles. One of the greatest obstacles is finding enough adoptive families. Many medical students may not have the time or resources to assume parental responsibilities, as they are already juggling a heavy workload from their professional curriculum. Additionally, there may be legal or financial obstacles that must be surmounted prior to a successful adoption which is usually taken care by the teaching institution. Finally, there is the difficulty of providing the necessary support and guidance to adopted children/families.^[12] This can be challenging for medical students with limited experience as felt by the fresher medical graduates during their visit to FAP in first year medical curriculum.^[13]

Further, a medical college's RHTC is an integral part of providing rural residents with utmost healthcare. It is essential for providing quality healthcare and medical services to those who may not have access to the same level of care as urban residents.^[14] By providing medical services, RHTCs contribute to the reduction of rural – urban health disparities as felt by most participants of this study.

In addition to providing rural residents with access to quality healthcare, RHTCs foster a sense of community and provides support. These centers frequently serve as a focal point for social activities and community events, providing a place for individuals to build relationships. This is especially important for those living in remote areas who may not have access to the same level of social support as their urban counterparts.^[15]

RHTCs offer a vast array of services to rural residents. Included in these services are primary care, emergency care, mental health services, and preventive care. Primary care consists of general medical care, such as check-ups and screenings, in addition to referrals to specialists and advanced treatments. Urgent medical care for illnesses or injuries that necessitate immediate attention constitutes emergency care. Those with mental health issues can receive counseling and therapy through mental health services.

Lastly, preventive care consists of health education and screenings to prevent illness and disease.^[16] In addition to these services, RHTCs offer access to specialists and sophisticated treatments that may not be available in rural areas. These services may include specialized treatments for chronic conditions such as cancer, heart disease and others as suggested by most of the participants in the study.^[17]

Gibbs' Reflective Cycle is an effective method to enable the students in reflective writing skills and analyse their experience as it was observed in the responses provided by the students. The Reflective narration of community medicine department's doctor-patient communication – ATCOM (Attitude and Communication Module Implementation), was clearly demonstrated by students in the study.^[18]

It will be necessary in the future to conduct long-term prospective individual case-based studies to evaluate the efficacy of such programmes and the contribution of fresher medical graduates to FAP/RHTC visits.

CONCLUSION

In professional competitions, reflectiveness is regarded as an essential quality. There are very few teacher – led initiatives to explain and expand reflection, despite its promotion as an important educational issue and the availability of numerous useful patterns. Gibbs' Reflective Cycle is an invaluable resource for students of medicine looking to reflect on their learning. It prompts students to reflect on their lives and ask what they can take away from them as a learning opportunity. Medical students can benefit from increased self-awareness and career readiness through the use of Gibbs' Reflective Cycle. The FAP at medical schools provides many benefits to both the students and the families, but it also presents some challenges. Before making a decision, those considering this programme must be aware of both its advantages

and disadvantages. However, with proper planning and support, this programme can be a wonderful way to provide equity in health care services. In addition RHTCs are essential for providing rural residents with access to quality healthcare and medical services. These centers definitely offer promising services, including primary and emergency and preventive care. The services provided by rural health training center helps to close the health gap between rural and urban areas and also strengthen the sense of community and support among rural residents. The addition of in-depth interviews in this study provided a richer understanding of the students' reflections, highlighting the importance of incorporating qualitative methods in medical education research. Future studies should consider long-term prospective case-based research to further evaluate the efficacy of such programs and the contributions of fresher medical graduates to FAP/RHTC visits. By integrating reflective practices and qualitative assessments, medical education can be significantly enhanced, ultimately leading to better healthcare outcomes for the communities served.

REFERENCES

1. Boud D, Keogh R, Walker D. Reflection: Turning experience into learning [Internet]. London: Routledge; 2013 [cited 2013 Oct 8]. 172 p. Available from: <https://doi.org/10.4324/9781315059051>
2. Driscoll J. Practicing Clinical Supervision: A Reflective Approach for Healthcare Professionals. 2nd ed. Edinburgh: Elsevier; 2007. 249 p.
3. Gibbs G. Learning by Doing: A Guide to Teaching and Learning Methods. 1st ed. UK: Oxford Polytechic; 1998. 134 p.
4. Gibbs T, Durning S, Van Der Vleuten C. Theories in medical education: Towards creating a union between educational practice and research traditions. *Medical Teacher*. 2011 Mar;33(3):183-7.
5. Jayatilleke N, Mackie A. Reflection as part of continuous professional development for public health professionals: a literature review. *Journal of Public Health*. 2013 Jun 1;35(2):308-12.
6. Husebo SE, O'Regan S, Nestel D. Reflective practice and its role in simulation. *Clinical Simulation in Nursing*. 2015;11(8):368–75.
7. Lane AS, Roberts C. Contextualised reflective competence: anew learning model promoting reflective practice for clinical training. *BMC Medical Education*. 2022 Dec;22(1):1-8.
8. Tawanwongsri W, Phenwan T. Reflective and feedback performances on Thai medical students 'patient history-taking skills. *BMC medical education*. 2019 Dec; 19:1-8.
9. Li Y, Chen W, Liu C, Deng M. Nurses psychological feelings about the application of Gibbs reflective cycle of adverse events. *American Journal of Nursing*. 2020;9(2):74-8.
10. Vanikar AV, Kumar V. The family adoption programme: Taking Indian medical undergraduate education to villages. *Indian Journal of Preventive & Social Medicine*. 2021 Sep 30;52(3):177-83
11. McCarthy B, Bessell N, Murphy S, Hartigan I. Nursing and speech and language students 'perspectives of reflection as a clinical learning strategy in undergraduate healthcare education: A qualitative study. *Nurse Education in Practice*. 2021 Nov 1; 57:103251
12. Leve LD, Neiderhiser JM, Ganiban JM, Natsuaki MN, ShawDS, Reiss D. The Early Growth and Development

- Study: A dual- family adoption study from birth through adolescence. *Twin Research and Human Genetics*. 2019 Dec;22(6):716-27
13. Arumugam B, Sanjana L, Singh DG, Kuppuraj P, Sayee TSM. A narrative review on the experience of “Family Adoption Programme” in a tertiary care institute. *J Community Health Manag*. 2022;9(2):54-59.
 14. Ricketts TC. The changing nature of rural health care. *Annual review of public health*. 2000 May;21(1):639-57.
 15. Talley RC. Graduate medical education and rural health care. *Academic medicine*. 1990 Dec 1;65(12): S22-5.
 16. Ricketts TC. The changing nature of rural health care. *Annual review of public health*. 2000 May;21(1):639-57.
 17. Garg S, Singh R, Grover M. Bachelor of rural health care: do we need another cadre of health practitioners for rural areas. *Natl Med J India*. 2011 Jan 1;24(1):35-7.
 18. Balaji Arumugam, Vishali Narayanan, Vigneshwari Kathiravan, Saranya Nagalingam, Retheshwaran. Reflective writing – how a medical student can reflect? *Journal of Education Technology in Health Sciences*, May-August, 2017;4(2): 47-53. DOI: 10.18231/2393-8005.2017.0013.