

Research Article

Introducing Portfolios for Family Adoption Program for Undergraduates

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A B S T R A C T

Introduction: The “family study” has been a part of the undergraduate curriculum since the inception of the subject of Community Medicine. With the introduction of the recommended Family Adoption Program as a part of the curriculum of Community Medicine, family study has gained a new and more robust face for community learning. To address the utility and impact of such a robust program involving experiential learning, existing methods of learning and assessment need to be changed. Hence, the portfolio used for learning as well as assessment has been explored for the family adoption program (FAP) at the undergraduate (UG) level.

Study Design: Interventional educational project.

Objectives: 1. Preparation of framework for Portfolio development for FAP 2. Utilizing the portfolio for student learning 3. Developing rubrics for portfolio assessment 4. Utilizing portfolios for assessment using the rubrics.

Method: The study was conducted involving one batch of 150 students and all faculty of the Community Medicine department. It was carried out in 3 phases - Developing a framework and guidelines for portfolio development, Introducing portfolios to learners and mentoring in preparation & organization & Assessment of portfolios.

Results: The Portfolio guidelines were developed and utilized during FAP by the students and the mentors for learning and feedback. Additionally, the Rubric for Assessment was developed and utilized for portfolio assessment. **Conclusion:** Portfolio use by UGs for FAP was found to be suitable for sustainability and replicability.

Keywords: Portfolio, Family Study, Family Adoption Program, Learning and Assessment, Undergraduates

Introduction

The “family study” has been a part of the undergraduate curriculum since the inception of the subject of Community Medicine. Family study is a teaching-learning method based on experiential learning principles wherein undergraduate students are supposed to study the family as a unit of health. The principles of public health are then linked to the observations made by the students in the community over a longitudinal period.

With the introduction of the NMC-recommended Family Adoption Program as a part of the curriculum of Community Medicine, field study shall begin from 1st professional year and remain throughout the curriculum. Family Adoption Program (FAP) has been envisaged in the undergraduate curriculum to provide a learning opportunity towards holistic community-based healthcare.¹

The NMC documented its vision to provide for a medical education system that improves access to quality and affordable medical education which promotes equitable and universal health care. During family study in addition to learning and linking concepts of health and disease, the students serve as primary consultants for households and are exposed to various skills like communication, empathy, ethics, interpersonal skills, social and cultural skills and inculcating leadership skills. Hence the need for FAP as a holistic approach towards learning professional skills cannot be undermined.²⁻⁵

Over the years, the teaching of the competencies related to family study has been limited to mere observations wherein the students just record their data in pre-made journals with a list of questions to be asked in the families and filled, resulting in superficial learning. A lot many journals/practical files/ family record books are there in the market or issued to the students by the universities to be submitted for evaluation. Generally, an alienated viva in-house or rarely a one-visit field viva is conducted for assessment of field study, which carries major weightage of internal assessment and university examination practical marks.

To address the utility and impact of such a robust program involving experiential learning, existing methods of learning and assessment need to be changed.

The introduction of portfolios in medical education is not new. However, most of the time, portfolios as a method of workplace-based assessment have been used mostly at the postgraduate level. Portfolio learning has been documented in literature as a method of encouraging adult learning.⁶⁻¹²

With the introduction of the FAP, the portfolio uses for learning as well as assessment has been explored at the undergraduate level. The portfolio used for family study learning has not been documented so far in undergraduate

teaching in Community Medicine in India. Hence, it is the first attempt of its kind for the development and use of a portfolio for facilitating experiential learning at the UG level. Also, a further attempt at developing rubrics and utilizing it for assessment was made.

Aim: Introducing and using portfolios for FAP

Objectives

1. Preparation of framework for portfolio development for FAP
2. Utilizing the portfolio for student learning
3. Developing rubrics for portfolio assessment
4. Utilizing portfolios for assessment using the rubrics

Methodology

The study was conducted as an interventional educational project under the Department of Community Medicine as a part of its Family Adoption Program for batch 2022 students at Adesh Institute of Medical Sciences & Research, Bathinda in Punjab. The required permissions from the Institutional Ethics Committee were obtained. The participants involved all faculty and field staff from the Department of Community Medicine and all 150 students of batch 2022. Informed consent was obtained from all participants regarding their willingness to participate in the study. The study was carried out from October 2022 to September 2023. All the data was collected and analysed by the investigators using a qualitative approach to document development and analysis.

The methodology adopted has been depicted in Figure 1.

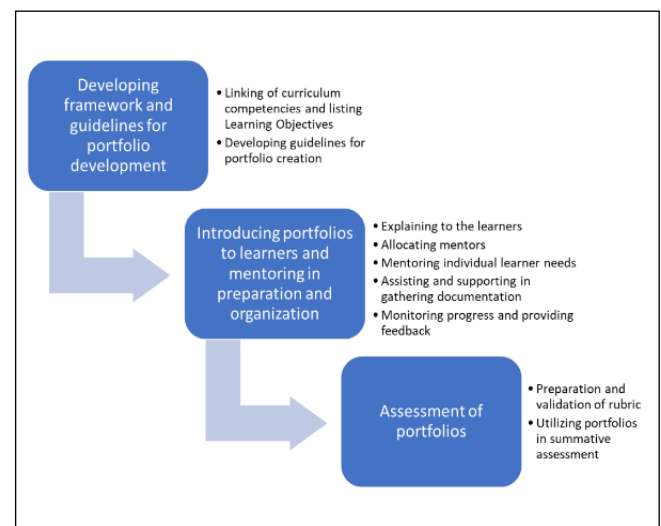


Figure 1. Methodology of the Project

Results and Discussion

It was planned that the whole process of FAP shall be documented and utilized for feedback and assessment using “Portfolios”.

The intended purposes for which the portfolios were introduced are as follows:

- Learning
- Personal development plan
- Providing feedback and monitoring
- Assessment

Various components that go into developing a learning and development portfolio were explored. After a thorough

discussion among the expert faculty from the Department of Community Medicine, the following framework was prepared, based on which the students were trained in the development of portfolios. A flexible learner-centred format was adopted. These guidelines were explicitly presented to the students before the start of the program. All doubts/queries were taken up and resolved to the satisfaction of students. A framework of guidelines (Table 1) was finally developed and utilized.

Table 1. Guidelines for “Learning & Developmental Portfolio” Development

S. No.	Component	Description	Minimum Number Required
1.	Table of contents	List of sections in the portfolio	Minimum 3 sections
2.	Learner goals	LOs or expectations from the program	At least one
Guidelines for selecting the material/ work samples[^]			
3.	Work samples	Written documents, narratives, audio files, video files, photographs, etc. Documentations of work done - learning progress	At least two
4.	Entry slips or captions	Include for each selection and explain why this piece of work was done or selected for showcasing	At least one
5.	Reflection sheets	Your reflections should accompany each selection	At least one
Criteria for evaluating the work[^]			
6.	*Section for comments/ feedback	Peer review Faculty review	At least one each
7.	*Future action plan/ feedforward	Self-directed learning plans, career-long professional development	At least one
Any other point (if any)			

*Can provide an invite for others to fill [^]To be provided by the department

The whole 2022 batch of 150 students was divided into 6 groups of 25 students each. For the purpose of continuous mentoring and feedback, each group of 25 students were allocated two faculty mentors- one AP and one demonstrator along with one field worker. These mentors were involved in continuous monitoring, guiding, feedback providing as well as formative assessment of the allotted students. Each FAP visit was accompanied by a briefing session and a debriefing session. One-on-one feedback was provided in the field itself, followed by a small group discussion session after each FAP visit and completion of the portfolios.

These portfolios were concurrently used to facilitate formative assessment by all the mentors. The formative assessment was conducted using the viva voce and 360-degree feedback in the field settings. The feedback

model of Pendelton’s was utilized by the mentors to provide feedback to the students.

It was further planned that the portfolios would be used at the end of the year for summative assessment. For the purpose of summative assessment, a rubric was created and validated. This rubric was used to grade the students’ portfolios.

The expert team of faculty developed and internally validated an Assessment Rubric using 4 criteria for the assessment of student portfolios in Phase 1 and subsequently 5 criteria for further phases. The pilot testing for the rubric and modification was conducted in order to verify its usefulness and/ or revise the rubric by adopting the process of open, full-group discussion. The rubric finally developed is outlined in Table 2.

Table 2. Rubric for Assessment of FAP Portfolios

Criteria	Not Done 0	Poor 1	Average 2	Good 3	Excellent 4
Learner goals: learning objectives (LOs)	Not defined	Listed but not defined and addressed	Defined aptly but addressed to some extent	Defined aptly and all LOs addressed	Defined aptly, addressed, and additional LOs created and addressed
Work samples: variety and quality	Not available	Only 1 type submitted Shows a lack of understanding of concepts	Insufficient samples Reflects some understanding of concepts	Sufficient samples (at least 1 for each concept) Reflects adequate understanding of concepts	More than sufficient samples Reflects in-depth understanding of concepts
Reflection sheets: reflections of work done	Not available	Only one Little evidence of reflection	Some evidence of reflection	Evidence of realistic reflection	Thorough and constructive reflection
Organization of learning cycle: linking LOs-work samples-concepts-SDL-future plans through captions	Not available	Available for a few concepts	Available for most of the concepts	Available for all concepts	Available for additional concepts
Learner development and growth (to be used for successive years except 1st)	Not apparent	Mild growth	Some growth	Significant growth	Excellent growth
Overall grading (0-16): year 1		0-4: Poor 5-8: Average 9-12: Good 13-16: Excellent	Overall grading (0-20): subsequent years		0-5: Poor 6-10: Average 11-15: Good 16-20: Excellent

The certification towards completion of FAP was based upon triangulation using portfolios grading, viva voce and 360-degree assessment to provide an authentic summative assessment.

Conclusion

The portfolio guidelines and the Rubric for assessment were validated and peer-reviewed. Further, they were pilot-tested on one full batch of 150 students. It was experienced that the portfolios have helped enhance the quality of learning experience for both students and teachers. The Institute plans to use it for all further batches for the teaching-learning and assessment in FAP.

Further, this basic framework of portfolios can be adapted and used by all medical colleges across the country for the purpose of FAP of undergraduates. Hence, they are suitable for sustainability and replicability.

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Conflict of Interest: None

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