

## Students' Portfolio: an Innovative Assessment Strategy: is It Effective for Students' Learning?



### Nursing

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#### ABSTRACT

*The use of the portfolio has increased lately in nursing education. It is being used for different approaches. This article concentrates on student portfolio use as an assessment tool to help the student in learning in nursing education. A review of literatures done to examine the portfolio effectiveness as an assessment tool was carried out. The findings of the review revealed that, portfolio as an assessment encourages the students to develop particular skills. It encourages self directed learning and gives the candidates an opportunity to control their own learning and reflect on their own development and progress in terms of achieving the course outcomes and the development of clinical practice skills and competence.*

*However, not all skills of nurses can be accurately assessed using portfolios, and reliability of portfolio assessment is challenging. However, more rigorous research is needed in nursing to evaluate the effectiveness of portfolio as an assessment tool.*

#### Introduction

Nursing education has always been influenced by continuous growth and acceleration of changes in the nursing profession (Lowenstein, 2004). These influences have compelled nurse educators to innovate in nursing education, in order to straddle the divide between education in nursing and health care practice (Tracy et al. 2000, Price 2006). The learning portfolio is an example of innovation in nursing education (Lowenstein & Bradshaw, 2004). The portfolio in general, is a collection of an individual's work.

The definition of portfolio varies according to the context it is being used in and its applications (Tillema & Smith 2000, Gannon et al.2001). However, portfolio is defined in nursing education by McMullan et al. (2003) as: a collection of evidence usually in written form of both the products and process of learning. It attests to achievement and personal and professional development, by providing critical analysis of its content.

This definition describes the purpose, and the nature of the portfolio. It elucidates activities that individuals undertake to prove learning achievements and progress. It does change the ideas about learning portfolio of been just a collection of course materials (McMullan 2003, Jasper, 2006).

Indeed, the use of the portfolio has increased lately in nursing education, and is being used for different purposes and approaches (Harris et al. 2001, Gannon et al. 2001, and Webb et al. 2003). In Oman, portfolio is used for post basic students in Adult Critical Care Nursing Program (ACCNP) since 2003. It was the first program at Oman Specialized Nursing Institute to use the portfolio for students' learning. Recently, incremental innovation has taken place by using the portfolio in Critical Care Nursing of Pediatric and Neonatology Programs (CCNPNP). Consequently, the portfolio has been used to provide evidence of the achievement of predefined learning outcomes that students have to achieve during their clinical placement. More significantly, the learning portfolio is meant to support student's personal and professional development, as well as to be used as an assessment tool to assess student learning. Assessment of student learning is a challenging process that educators are always striving to achieve and improve (Endacott et al. 2004). The use of the portfolio in assessment of student learning has been created in response to the need for alternative and more authentic forms of assessment for nursing practices (Tiwari & Tang, 2003, McMullan et al.2008).

The purpose of this paper is to examine the effectiveness of

the portfolio as an innovative assessment strategy that enhances students' learning process. In an effort to substantiate the above stated claims a literature search has been carried out.

#### Search strategies:

The literature search involved five Bibliographic databases ; Cumulative Index to Nursing and Allied Health (CINAHL), British Nursing Education Index (BNI), MEDLINE ,Educational Research Abstract ,Educational Resources Information Centre (ERIC) and relevant journals. The total numbers of relevant publications after removing the duplication references were 48 articles, which has been refined against inclusion criteria and exclusion criteria in Table (1).

**Table (1). Inclusion Criteria and Exclusion criteria**

Inclusion Criteria	Exclusion criteria
All types of researches	Studies before 1992
Studies measured the effects of portfolio on student learning and development	Focus on any other type of portfolio rather than student portfolio
All studies addressing the use of portfolio as a method of assessment.	Studies from other fields rather than nursing
	If the portfolio is not used as an assessment tool.

In this exploratory review, a qualitative pieces of research by Gerrish (1993) which is a seminal work that was cited in all reviewed studies, evaluated the portfolio assessment strategy implementation which involved 20 students of nurse teaching. The study findings revealed that the portfolio gave the students an opportunity to contribute to the assessment, appropriately meeting their needs, along with self assessment that helped in personal development and critical analysis. Furthermore, the participants expressed feelings of anxiety and felt that using the portfolio in assessment was stressful and time consuming. In addition, Gerrish (1993) outlined issues regarding the validity and reliability of the portfolio as an assessment tool and recommended more research in this area.

A quantitative study done by McMullan (2006) analyzed 253 pre-registered student nurses' perception of portfolio use in clinical practice learning and assessment. It involved 131 first year students and 122 third year students. The study showed that 74% of participants strongly agreed that the portfolio helped them to take responsibility for their own learning. The study suggests a conflict between using portfolios for both assessment and learning and results in a reduction in the honesty and learning value of reflective writing and of the portfolio. The author concluded that the portfolio can be a very effective assessment and learning tool if clear guidelines and support are provided.

With regards to integration of theory and practice, which is essential in a nurse's professional development and practice assessment (Jasper & Fulton, 2005), McMullan's (2008) qualitative findings show that the portfolio widens the gap between theory and practice when used for assessment. On the other hand, a contradictory view was evident in Coffey's (2005) study, which aimed to describe the use of the portfolio in the assessment of clinical learning and presented the findings of an assessment of 22 graduates who completed their portfolios. The findings support the use of the portfolio as an assessment tool that bridges the theory and practice gap. The findings also were coincide with the results of Endacott et al. (2004), Scholes et al. (2004) and the earlier study of Gerrish (1993) on portfolio effectiveness. This disagreement in views reflects a truism concerning variations in the evidence and the conceptualizing of the portfolio by those whose adopt it as well as their experiences of using it. Also, integration of theory to practice is relevant to knowledge application, which varies between individuals (McGuire 2006). Nonetheless, the students' view does not reflect the whole picture regarding this innovation's effectiveness in closing the theory to practice gap.

Generally, there was significant diversity within the literature's population; some garnered data from pre-registration students, others undergraduates and nurse teachers. As a result of this, some studies were not conclusive, and considering the differences in population and training where some differences could occur and affect the veracity of the results (Parahoo, 2006). More importantly, the main concern was adding to the body of knowledge related to the use of the portfolio in nursing education.

Portfolio is based on an adult learning approach, and thought to promote self-awareness and inspire learners to take part in their own learning process (McMullan et al. 2003). In this respect, McMullan (2006) argues in favour of effectiveness of the portfolio in personal development through reflective writing. This is achieved by providing the learners with the opportunity to reflect on their experience and to analyze their learning in clinical practice. Reflection is considered the most crucial component of the portfolio, as it permits the learner to take decisions concerning portfolio content, thus facilitating autonomy, responsibility and accountability, as well as developing reasoning skills (Gerrish, 1993, Harris et al 2001, McMullan, 2006). This fosters the development of future reflective practitioners, and reflects the fact that the aim of education is to produce critical thinking and decision making in practitioners, who should show proficiency and adaptableness in a very dynamic profession (Scholes et al.2004, McMullan, 2006). Ultimately, a worthwhile conclusion from these studies is that the whole process of assembling a portfolio is a positive learning experience with tangible benefits for the students (Gerrish, 1993, Coffey, 2005, McMullan, 2006). Furthermore, the review findings predominantly elicited the student learning benefits and the limitations of the portfolio as an assessment tool.

#### **Portfolio assessment challenges (limitations of the portfolio as an assessment tool)**

Despite the fact that there is extensive support for portfolio use in nursing education, there are significant limitations to its use as an assessment tool. All reviewed studies reported problems when the portfolio is used in assessment (McMullan et al. 2003, Coffey, 2005, Endacott et al. 2004) Examples of problems that arise are time consumption, confusion, unclear guidelines and unclear marking criteria (McMullan 2006, Webb et al. 2003, Scholes et al. 2004). In term of assessment calibre and scrutiny, the portfolio is like any other method, assessing learning and competence in nursing; for a positive learning experience and an authentic assessment that reflect the objectivity, reliability, and standardisation values of rigorous training (Ball & Carnwell, 2000). In addition, the portfolio generates challenges regarding validity (what is supposed to be measured) and reliability that have to be established and assessed.

In this respect, McMullan (2006) argues that the portfolio's contents interferes with its validity and depreciates the learning process. For example, student's honesty on reporting negative experiences in their reflection will be affected by marking and as a result they will not include it in the portfolio. In addition, the evidence collected in the portfolio is mainly qualitative information from different sources which makes the reliability of the portfolio questionable (Webb et al. 2003) and here is where educators exert an effort to increase the authenticity of the used assessment method.

Additionally, there have been attempts to solve the problem of portfolio assessment evaluation and increase its use effectively. For instance, Webb et al. (2003) proposed a separate assessment of clinical skills and practical performance from the reflective aspect recorded in a portfolio. This would facilitate the cumulative effects of learning. Another solution to alleviate portfolio problems is the recommendation made by some authors that is in the assessment of students' portfolios, the assessors should be knowledgeable of the criteria of marking and candidates should be provided with clear guidelines and feedback on the process of compiling the portfolio, as well as rigorous marking criteria (McMullan, 2008). This was supported by Endacott et al. (2004), who recommended clear guidelines and support provision to students during the process of compiling their portfolios. Moreover, Gerrish (1993) also pointed out the same solution, for assessment strategy development. Moreover, the role of the portfolio as formative assessment should reflect continuous feedback as it does not appear in the literature, where many authors recommended providing feedback on completion of the portfolio (McMullan, 2008, Webb, et al.2003).

#### **Implication for practice and recommendations**

Indeed, the findings were consistent with those well organised research in other disciplines, such as medical and general education, where the effectiveness of the portfolio was proven on an empirical basis, utilising Random Controlled Trail (Finlay et al. ,1998, Driessen et al. ,2007). Therefore, recognizing the outcomes and the challenges in portfolio implementation, it is expected that the same limitations will be faced in Oman. Consequently, Omani educators have to consider portfolio effectiveness and overcome its limitations. The following table (2) suggests some interventions for ensuring improvements in the future using problem and enquiry -based form of learning strategy (price, 2006).

Table ( 2) Interventions for promoting portfolio effectiveness and success

Clearly introduce the goals of working with a portfolio.
Provide clear guidelines about the procedure, the format and the content
Provide support by teachers, trainers
Train the assessors
Clear marking criteria
Flexible Portfolio format
Integrate the portfolio into other educational activities in the curriculum
Evaluate the Portfolio outcomes regularly

#### **Conclusion**

It is evident that the portfolio makes an important contribution to the learning process as an effective method of learning. This has been ensured by the affirmative support for the portfolio in many quarters and its positive contribution in the development and growth in the student learning process, which is the main purpose of its implementation (McMullan, 2008). However more rigorous research is needed in nursing to evaluate the effectiveness of portfolio as an assessment tool.

#### **References**

1. Ball E., Daly W. M., and Carnwell R. (2000) The use of portfolio in the assessment of learning and competence. *Nursing Standard*.14 (43) 35- 37.

2. Coffey A (2005) The clinical learning portfolio: a practice development experience in gerontological nursing. *Journal of Clinical Nursing*.14 (8) 75-83.
3. Critical Care Nursing of Paediatric and Neonatology Programme (2004) Programme Synopsis. Oman.
4. Driessen E, Tartwijk J, Vleuten C and Wass V (2007) Portfolios in medical education: why do they meet with mixed success? A systematic review. *Medical Education*. 41 (12) 1224-1233.
5. Endacott R, Gray M, Jasper K, McMullan M, Scholes J and Webb C (2004) Using portfolios in the assessment of learning and competence: the impact of four models. *Nurse Education in Practice*. 4 (4) 250-257.
6. Finlay I G, Maughan T S and Webster D J T (1998) A randomized controlled study of portfolio learning in undergraduate cancer education. *Medical Education*. 32 (2) 172-176.
7. Gannon FT, Draper P R, Watson R, Proctor S and Norman I J (2001) Putting portfolios in their place. *Nurse Education Today*. 21 (7) 534-540.
8. Gerrish K (1993) An evaluation of a portfolio as an assessment tool for teaching practice placements. *Nurse Education Today*. 13 (3) 172-179.
9. Harris S, Dolan G and Fairbairn G (2001) Reflecting on the use of student portfolios. *Nurse Education Today*. 21 (4) 278-286.
10. Jasper M (2006) Professional Development, Reflection and Decision-making. Oxford: Blackwell publishing.
11. Jasper M A and Fulton J (2005) Marking criteria for assessing practice –based portfolios at masters' level. *Nurse Education Today*. 25 (5) 377-389.
12. Lowenstein A J (2004) Strategies for Innovation. In: Lowenstein and Bradshaw. *FUSZARD'S Innovative Teaching Strategies in nursing*. (3<sup>rd</sup> edn.) Boston: Jones and Bartlett publication.
13. Lowenstein and Bradshaw (2004) *FUSZARD'S Innovative Teaching Strategies in nursing*. (3<sup>rd</sup> edn.) Boston: Jones and Bartlett publication.
14. McGuire J (2006) Putting nursing research finding into practice: research utilization as an aspect of the management of change. *Journal of Advanced Nursing* 53 (1) 65-74.
15. McMullan M (2006) Students' perceptions on the use of portfolios in pre-registration nursing education: A questionnaire survey. *Nurse Education Today*. 28 (7) 873-879.
16. McMullan M (2008) Using portfolios for clinical learning and assessment: the pre-registration nursing student's perspective. *Nurse Education Today*. 28 (7) 873-879.
17. McMullan M, Endacott R, Gray M, Miller C, Scholes J and Webb C (2003) Portfolios and assessment of competence—a review of the literature. *Journal of Advanced Nursing*. 41(3) 283-294.
18. Parahoo K (2006) *Nursing Research: Principles process and Issue* (2ed edn). New York: Palgrave Macmillan.
19. Price B (2006) Strategies to explore innovation in nursing practice. *Nursing Standard*. 21 (9) 48-55.
20. Scholes J, Endacott R, Gray M, Jasper K, McMullan M and Webb C (2004) Making portfolios work in practice. *Journal of Advanced Nursing*. 46 (6) 595-603.
21. Tillema H and Smith K (2000) Learning from portfolios: differential use of feedback in portfolio construction. *Studies in Educational Evaluation*. 26 (3) 193-210.
22. Tiwari A and Tang C (2003) From process to out come: the effect of portfolio assessment on student learning. *Nurse Education Today*. 23 (4) 269-277.
23. Tracy S (2000) The clinical achievement Portfolio: an outcomes- based assessment project in nursing education. *Nurse Educator*. 25 (5) 241-246.
24. Webb C, Endacott R, Gray M, Jasper M A, McMullan M and Scholes J (2003) Evaluating portfolio assessment system: what are the appropriate criteria? *Nurse Education Today*. 23 (8) 600-609.