Reflection as part of continuous professional development for public health professionals: a literature review

Nishamali Jayatilleke¹, Anne Mackie¹,²

¹UK National Screening Committee, London, UK
²Faculty of Public Health, London, UK

Address correspondence to Nishamali Jayatilleke, E-mail: nj201@doctors.org.uk

ABSTRACT

Background For many years, reflection has been considered good practice in medical education. In public health (PH), while no formal training or teaching of reflection takes place, it is expected as part of continuous professional development. This paper aims to identify reflective models useful for PH and to review published literature on the role of reflection in PH. The paper also aims to investigate the reported contribution, if any, of reflection by PH workers as part of their professional practice.

Methods A review of the literature was carried out in order to identify reflective experience, either directly related to PH or in health education. Free text searches were conducted for English language papers on electronic bibliographic databases in September 2011. Thirteen papers met the inclusion criteria and were reviewed.

Results There is limited but growing evidence to suggest reflection improves practice in disciplines allied to PH. No specific models are currently recommended or widely used in PH.

Conclusions Health education literature has reflective models which could be applied to PH practice.

Keywords education, employment and skills, models

Background

The practice of public health (PH) is a science as well as an art.¹ PH professionals may work across all or some of its main domains—health improvement, health protection and health services. The Faculty of Public Health provides direction and guidance to enable the development of professionals and establish competencies that specify behaviour, skills and attitudes. The Faculty encourages professionals to reflect as part of essential practice.² Many different disciplines contribute to the PH workforce, but all are expected to keep themselves up to date through continuing professional development (CPD). However, the mere experience of carrying out some developmental activity may not be sufficient to enable future improvements and thus many medical specialities encourage their practitioners to reflect on their experiences.³

Reflection can contribute to learning.⁴ Illeris⁴ describes learning to consist of emotional and social dimensions as well as cognitive. In practice, the cognitive aspects are most easily measured through assessments or performance, while the emotional and social aspects may be less easily captured. Frameworks of reflection could support the development of both these dimensions.⁵ Further to this, if learning is considered to take place in the form of a cycle, as shown in Fig. 1, the role of reflection becomes apparent.

The cycle of learning comprises four elements—a concrete experience, an observation and reflection, formation of abstract concepts and testing in new situations.⁶ The circular model does not mean each stage should be equally weighted in time and emphasis.⁷ Kolb and Fry, in their theory, argue that the cycle can begin at any of those points. However, in

Nishamali Jayatilleke, Specialty Registrar in Public Health
Anne Mackie, Director of UK National Screening Committee & CPD Director of Faculty of Public Health

© The Author 2012, Published by Oxford University Press on behalf of Faculty of Public Health. All rights reserved
its simplified form, the learning cycle will begin by carrying out a task, the person would reflect on that experience and apply the learning in a new situation. In order to apply experience to the new situation, the ability to generalize through identifying principles and their connections to actions over a range of circumstances is required. Throughout the process, learners rate themselves which is an important element for adult learners and could be considered relevant for continuous professional development. In his work, Donald Schon concludes that the possible objects for reflection can be as varied as the situations faced and the systems in which they occur. Reflection can be understood as the ‘ability to gain understanding of specific issues in practice through critically contextualizing, observing and analysing to generate new knowledge and insights which can enhance practice’. This may mean the individual might reflect on the feeling for a situation which has led to adoption of a particular course of action, the way in which the problem has been framed and/or the role this has created for the individual in the wider institution as a result. It can be seen as the process of reasoned thought which enables a critical assessment of both self as a professional and as an agent of change. This latter is of particular relevance to PH professionals in their roles of influencing decision-making.

However, as a speciality on the whole, PH has focused heavily on quantitative measures for evaluation. The purpose of this paper is to describe the development of a framework for learning to reflection for individuals as well as for teams and to identify approaches to guide continuous professional development. This paper describes how this could be implemented and used in everyday work to enable professional development.

**Method**

**Literature search strategy**
A literature search was undertaken using CINAHL, Medline and OvidSP electronic databases in September 2011. The search terms used were evidence-based practice, research evidence, medical education, qualitative research, reflective practice, reflection and evidence. Other sources included handpicking of books on evidence-based practice, reflection and research. Full texts of potentially relevant articles were obtained. Papers were identified for inclusion in the review by examination of full text articles. Data relating to characteristics of the population, intervention, outcome measures, study design and outcomes were collected.

**Inclusion criteria**

Papers written in English only were included. Articles pertaining to reflection in or on practice in PH or related disciplines were included. Documents published between 1970 and 2011 were included. Peer- and non-peer-reviewed publications were considered.

**Exclusion criteria**

Articles that included reflection as by-product rather than the main focus were excluded. Non-English language publications were excluded.

**Results**

Electronic searches yielded over 100 citations. Further citations were obtained by hand searching of reference lists. More than 20 full articles were retrieved and assessed.
against the set inclusion criteria. Of the five papers included in this review, none were from PH, two from nursing and two from other allied health professions or other education literature. One further model was included from non-health background.

The search did not find evidence that particular frameworks were in regular use in current PH practice. The search identified educational concepts from the literature which could be applied to PH. Several approaches to reflection were found. While none of these were linked directly to PH practice, their use in medicine was referenced. The literature discussed here were selected on relevance and focused on the synthesis on framework, service-based learning and mentorship.

Burton’s approach\(^1\) was to use the core questions focused on reflection on action but with the ability to be applied in and before action. Burton’s cycle of three questions comprises the questions: What? So what? Now what? These are questions which the reflector can answer during the reflective process.

Boud et al.\(^2\) defines reflection in the learning context and focuses on the personal experience as the object of reflection—as the intellect and affects lead to new understandings and appreciations. Boud describes three main components to consider—experience, reflection and outcome. The experience can be a behaviour, ideas or feelings. The reflection will include returning to the experience, attend to feelings that it brought about and a re-evaluation of the experience. The outcome will look at new perspectives, changes to behaviour and an application of learning into practice.

The Gibbs’ reflective cycle (1988) encourages a clear description of the situation, analysis of feelings, evaluation of the experience and an analysis to make sense of the experience. This would be followed by conclusions where other options are considered and reflection upon experience to examine what one would do if the situation arose again.\(^3\) In essence, Gibbs describes a cycle of description, feelings, evaluation, analysis, conclusion and action plan. The description is questioning what happened followed by the feelings brought about through the questions—‘what were you thinking and feeling?’ The evaluation component describes what was good and not so good about the experience. The analysis should identify what sense can be made of the situation and the conclusion details of what else could have been done. The process of reflection is ended with an action plan for what could be done if the situation arose again.

Atkins and Murphy\(^5\) through their model suggest that for reflection to have a real effect it needs to be followed by an action commitment. The authors describe a cycle of awareness, description, analysis, evaluation and learning. The reflective process begins with the awareness of uncomfortable feelings and thoughts from the action or new experience followed by a description of the situation including thoughts and feelings. This would need to include salient events and key features identified by the reflector. The reflector would need to analyse feelings and knowledge relevant to the situation—identifying knowledge, challenging assumptions, imagining and exploring alternatives.

The reflection process would also need to include evaluation and consolidating learning. Evaluate the relevance of knowledge through asking questions includes the following: ‘Does it help to explain and/or solve problems?’ ‘How complete was the use of knowledge?’ These steps would be followed by identifying any learning which has occurred.

After-action review is a de-brief process in practice originally developed by the US army which aims to identify how to improve, maintain strengths and focus on performance of specific objectives. The de-brief manual provides guidance for individuals and group reviews.\(^4\) The review would answer the following four questions: What was supposed to happen? What actually happened? Why were they different? What did we (I) learn?

Discussion

Main findings

There is no published evidence of the use of particular models of reflection in PH practice. The general medical education literature contains various approaches to reflection.

The evidence base to suggest learner’s self-reflection skills can be improved through formal training is still lacking.

There are a variety of theories on reflection in the education literature. The implication this brings to individual PH practitioners is to consider when and how they will reflect as part of their continuous learning cycle. In addition, whether the act of reflection should be done alone or as part of a team or both will need to be established. As a discipline that has focused less on reflection in the past it is possible to draw on theories and models already existent and in use within medicine. There are a range of ways to reflect which include methods like journal writing, discussions and use of technology such as blogs.\(^5\) There is also a range of aspects to be considered, for example, individual perspective, team dynamics and societal impacts. Ultimately, the aim of reflection would be to improve practice and learn from relevant experiences. It is obvious that this comes from being an analytical reflector and moving beyond pure description. As some of the literature suggests, it is useful to recognise
emotional influence and challenge one’s ideas. In broader learning terms, it is also useful to consider the relevance of prior experience.

Reflection enhances personal development by leading to self-awareness. If the focus of reflection is improvement in patient care, it helps to expand and develop clinical knowledge and skills. The process slows down activity providing time to process material of learning and link to previous ideas. It should also enable more ownership of the learning taking place. Reflection has been reckoned to promote optimum effectiveness and efficiency in an ever evolving and complex health-care system through practitioners auditing their own practice. Reflection reminds qualified practitioners that there is no end point to learning about their everyday practice. Where it exists, the practice of reflection has tended to focus on individual professionals at specific points in time and/or on specific elements of practice. This, however, can form only a part of the experience as many PH actions involve many disciplines. Often action takes place across multi-sectoral teams and involves multi-phased interventions. Programme delivery is often longer term, should be population focussed and policy led.

The learner involvement is a key fundamental principle of adult education. PH CPD and the reflection that forms part of it can be viewed in light of adult education as individuals need to take ownership and engage in setting their learning agenda. Therefore, the mere act of reflecting supports the andragogical model as adults need to be able to establish the purpose of the activity undertaken and identify how to cope effectively with real-life situations.

There needs to be opportunity to reflect as individuals as well as in teams in an acute manner while carrying out the longer term projects. Reflection can be used as a tool to facilitate professionals to assess beliefs, values and approaches to practice. These factors determine how individuals personally and the policies/programmes which they deliver, act as agents of change, contributing to empowerment. Adult learners are more likely to believe and instil ideas that they help create. The environment can provide many structured activities that generate the ideas, concepts or techniques if an active decision to do so is taken. The practitioner could then experience surprise, puzzlement or confusion associated with the situation. Reflecting on the phenomena that is being experienced and prior understanding which have implicated, the resulting behaviour will lead the learner to new understanding.

In the health promotion literature, reflection on external and internal factors is recommended. These factors, however, could be equally applied to other domains of PH as they will include policy, professional and societal influences (examples of external factors) and attitudes, skills, experiences and team dynamics (examples of internal factors).

The practice of self-reflection in academic achievement has been captured in disciplines that contribute to PH. A positive impact was noted through reflective journal writing over only scientific report writing for those studying biology. This was evidenced through greater awareness of cognitive strategies and conceptions of learning when learners constructed more complex and related knowledge when learning from text. In studies of mathematics students, while reflection was not necessary for high grades of achievements, it supported better conceptualization of meanings of the technical definitions. Practice, shaped through reflection can develop professionals, organizations and society. This is already considered important within health promotion.

Educational concepts and the impact of reflection are not easily measurable. Therefore, its merits may be overlooked. One can argue that this approach of reflecting on an issue is too straight forward and, in practice, difficult issues may take months to reflect on. Doing so quickly might lead to a paper exercise. Explicit frameworks may not be suitable for some situations. Frameworks vary in their focus of contexts. However, they are aimed to be critical analyses of knowledge and experience to deepen understanding. Time, motivation, initial expertise and lack of peer support are recognized barriers to reflection. To add to this are organizational contexts and team dynamics—frequent problems faced by PH professionals. However, a structure to guide the process of reflection on the content and the process of learning would be deemed useful.

Limitations
With the aim of providing a broad overview of reflective approaches relevant to PH professionals, this work provides a selection and not a complete comprehensive collection of medical education literature.

What does this report add?
There are very few articles relating the use of reflection to current PH practice and furthermore on the strengths and weaknesses of different models that could be applied. This review article outlines some of the most applicable and outlines their merits and otherwise. Individuals working in PH may consider some of the approaches described here alongside their current professional development activities either as individual learners or as part of learning within teams.
Conclusions
At present, the strength and extent of the evidence base for the educational effects of reflection in a PH setting is limited.

However, there is evidence of an improving trend in the quality of reported studies. ‘Higher quality’ papers identify improvements in knowledge and understanding, increased self-awareness and engagement in reflection and improved opportunities through specialist training and continuous professional development.

In recognition of the time commitment involved, the benefits to the profession must be apparent. In addition, the opportunity cost of other learning and developmental activity forgone needs to be considered. Further work is needed to strengthen the evidence base for reflection, particularly, where possible, comparative studies which observe changes in knowledge and abilities directly.

Given its merits, while the quantitative evidence base is limited, what are the implications for practice? Given PH’s stated desire to base practice upon evidence there is urgent need to formally assess the effectiveness of reflection in the improvement of PH practice.

Acknowledgements
We would like to thank Joanne Harcombe for her helpful comments on the draft manuscript.

References