

Reflection: a review of the literature

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Reflection: a review of the literature

This paper is a review of the literature on reflection. The purpose was to unravel and make sense of the complex literature, and to identify the skills required to engage in reflection. An analysis of the literature revealed that differences between authors' accounts of reflective processes are largely those of terminology, detail and the extent to which these processes are arranged in a hierarchy. Key stages of reflection are identified and represented by a model. Skills required to engage in reflection were found to be implicit in the literature and these are identified. Methodological issues related to empirical literature are discussed. It is suggested that reflection is an important learning tool in professional education and that the skills required for reflection need to be developed in professional courses.

POTENTIAL OF REFLECTION

Recently within nursing there has been an increasing interest in exploring ways in which professionals learn and, in particular, examining the potential of reflection as a learning tool. It has been recognized that there is a need to integrate theory and practice and that reflection may be a tool which can facilitate this process (Clarke 1986, Champion 1991).

Much of the literature on reflection is complex and abstract. This literature review was undertaken as an attempt to unravel the important aspects of reflection and to identify cognitive and affective skills required to be reflective. From a review of the theoretical and empirical literature on reflection, key stages of the reflective processes are identified. An attempt to identify skills required for reflection is made, and methodological issues are discussed.

The importance of reflection as a key learning tool in professional education had been emphasized (Schon 1991,

Bines & Watson 1992). Schon (1991) argues that professionals in their everyday practice face unique and complex situations which are insolvable by technical rational approaches alone. He proposes, therefore, an approach where professionals' learning is facilitated by reflection.

Two types of reflection are identified: reflection-in-action and reflection-on-action. What is particularly interesting about reflection-in-action is that it occurs while practising and influences the decisions made and the care given. While a professional is consciously aware of the knowledge used while reflecting-on-action, this may not be so for reflection-in-action (Schon 1991), and therefore it may be difficult for practitioners to articulate the knowledge they are using in action.

SCOPE OF THE LITERATURE

There are several key educational theorists who have proposed reflection as a learning tool and analysed the processes of reflection (Boud *et al* 1985, Van Manen 1977, Mezirow 1981, Schön 1991). Some of their writings have been heavily influenced by the work of the philosophers

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Dewey, Habermas and Friere Jarvis (1992) examines the nature of reflective practice in nursing, and differentiates between thoughtful practice and reflection

There have, however, been relatively few research studies focusing on reflection. Those which have been undertaken can be categorized into studies which examine the processes of reflective learning (Boyd & Fales 1983, Goodman 1984) and those which examine the extent to which reflection is used by professionals (Kirby & Teddlie 1989, Powell 1989). Powell's (1989) study is the only one identified which focuses on reflective practice in nursing.

Definitions of reflection

The lack of definition and clarity of the concept of reflection was evident in much of the literature reviewed (Mezirow 1981, Goodman 1984, Powell 1989, Schon 1991). This raises the questions of whether these authors share a common understanding of the term 'reflection', and the extent to which the reader can make comparisons between these works. The only authors identified who offer a definition of reflection are Boyd & Fales (1983) and Boud *et al* (1985). The definitions share some commonalities and are worth considering more detail. Boyd & Fales (1983) suggest that

reflective learning is the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective

while Boud *et al* (1985) consider

reflection in the context of learning is 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 appreciations

It is evident from these definitions that both authors see the processes of reflection as involving the self, and the outcome of reflection as a changed conceptual perspective. While other authors also identify these two aspects as important, the lack of definition makes comparison between works more difficult, and therefore the good practice of defining the concept of reflection should be encouraged.

Jarvis (1992) acknowledges this lack of definition and attempts to define reflective practice. However, unlike the other authors reviewed, his definition does not include the self, and while he states that reflective practice is a potential learning situation he does not indicate that it necessarily results in a changed conceptual perspective. What all these

authors reviewed have in common, however, is that they discuss the processes of reflection.

PROCESSES OF REFLECTION

In discussing the processes of reflection, stages or levels of reflection are identified by most authors (Van Manen 1977, Mezirow 1982, Boyd & Fales 1983, Goodman 1984, Boud *et al* 1985, Schon 1991). A few authors also argue that intuition plays a central role (Goodman 1984, Schon 1991). Intuition has been defined by Benner & Tanner (1987) as 'understanding without a rationale'. However, intuitive knowledge is not overtly discussed by most authors.

From an initial review of the literature it may appear that the accounts of reflective processes are very different. For example, Mezirow (1981) identifies seven levels of reflectivity in hierarchy, ranging from reflectivity which is an awareness of thoughts and feelings, to theoretical reflectivity which involves challenging one's underlying assumptions resulting in a changed perspective. In contrast, Schon (1991) only identifies three stages: those of conscious reflection, criticism and action.

However, an analysis of the literature revealed that the differences between authors' accounts of the reflective processes are largely those of terminology, detail and the extent to which the processes are arranged in a hierarchy. It is possible, therefore, to identify from the literature three key stages in the reflective processes shared by authors.

The first stage of the reflective processes is triggered by an awareness of uncomfortable feelings and thoughts. This arises from a realization that, in a situation, the knowledge one was applying was not sufficient in itself to explain what was happening in that unique situation. Schon (1991) refers to this as the experience of surprise, whereas Boyd & Fales (1983) describe this stage as a sense of inner discomfort.

The second stage involves a critical analysis of the situation, which is constructive and involves an examination of feelings and knowledge. It may be that when a person initially analyses his/her existing knowledge and applies other knowledge, an explanation of that unique situation may be possible. However, the analysis also may involve the examination or generation of new knowledge. Boud *et al* (1985) describe in detail the analysis of feelings and knowledge, emphasizing the importance of utilizing positive feelings and removing obstructive feelings. They use four terms to describe these critical thought processes: association, integration, validation and appropriation. Mezirow (1981), however, uses the terms conceptual, psychic and theoretical reflectivity to describe these processes of analysis.

Awareness of uncomfortable feelings and thoughts



Critical analysis of feelings and knowledge



New perspective

Figure 1 Reflective processes a model

The third stage involves the development of a new perspective on the situation. The outcome of reflection, therefore, is learning. Mezirow (1981) describes this stage as perspective transformation. Boud *et al* (1985) discuss in more detail the outcomes of reflection, suggesting that there are both affective and cognitive changes which may or may not lead to behavioural changes.

The three key stages identified can be represented by the model illustrated in Figure 1. Although the stages in this model are represented as a linear process, they are in reality integrated. However, it is useful to disentangle the stages and represent them in a linear way, in order to facilitate an understanding of the processes of reflection.

While identifying the processes involved in reflection is important, in order to use reflection as a learning tool it is necessary to identify the skills required.

SKILLS

An aim of this review was to identify the skills required to be reflective. None of the literature reviewed explicitly addresses this issue. However, Goodman (1984) and Boud *et al* (1985) emphasize the importance of open-mindedness and motivation. While these in themselves are not skills, they are prerequisites to reflection which need to be encouraged.

Some authors move from an examination of reflective processes to a discussion of skills required of educators to promote reflection in learners, without explicitly identifying the skills required to be reflective (Boud *et al* 1985, Saylor 1990, Schon 1991). The identification of key stages in the processes of reflection demonstrated that self-awareness, an analysis of feelings and knowledge, and the development of a new perspective were crucial to reflection. There is, therefore, implicit in the literature an assumption that certain cognitive and affective skills are necessary to engage in reflection. These skills are identified as self-awareness, description, critical analysis, synthesis and evaluation.

Self-awareness

Self-awareness enables a person to analyse feelings. This is an essential component of reflection. It involves an honest

examination of how the situation has affected the individual and how the individual has affected the situation.

Description

Description involves the ability to recognize and recollect accurately salient events and key features of an experience and to give a comprehensive account of the situation (Boud *et al* 1985). Following an awareness of uncomfortable feelings and thoughts, a person needs to be able to describe these verbally and/or in writing to enable learning through reflection.

Critical analysis

Critical analysis involves examining the components of a situation, identifying existing knowledge, challenging assumptions, and imagining and exploring alternatives (Bloom *et al* 1956, Burnard 1989). A critical analysis of knowledge is undertaken which involves examining how relevant knowledge is to an individual situation.

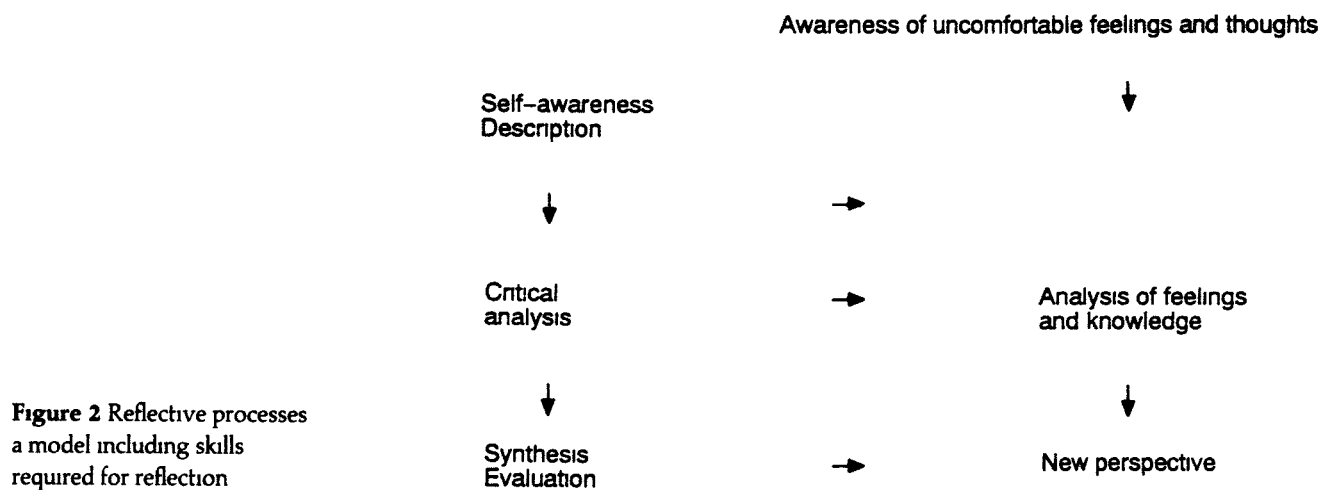
Synthesis

Synthesis is the integration of new knowledge with previous knowledge. Stephenson (1985) considers that synthesis involves using this knowledge in a creative way to solve problems and to predict likely consequences of actions. This is particularly important as the outcome of reflection involves the development of a new perspective.

Evaluation

Evaluation is defined by Bloom *et al* (1956) as the making of judgements about the value of something. It involves the use of criteria and standards. Mezirow (1981) argues that both synthesis and evaluation are crucial to the development of a new perspective.

This review indicates that description, self-awareness, critical analysis and evaluation are important skills for reflection. It is suggested, therefore, that sufficient attention needs to be given to the development of these crucial skills in order to develop reflective abilities. It is, however, recognized that there may be other skills not addressed in this review that will enhance a practitioner's ability to be reflective. A model integrating the skills required for reflection and reflective processes is presented (see Figure 2).



METHODOLOGICAL ISSUES

In examining the processes of reflection and the skills required to be reflective it became evident that there were several issues of concern. The lack of clarity of the concept of reflection and the failure of many of the empirical studies to define it, has made the concept difficult to operationalize (e.g. Kirby & Teddlie 1989). A further concern relates to the methods used to study reflection. Observation and interviews were used in the empirical studies reviewed (Powell 1989, Boyd & Fales 1983, Goodman 1984, McCaugherty 1991). While these methods may be appropriate in capturing the conscious processes of reflection-in-action, their suitability alone for studying reflection-in-action is questioned.

Powell's (1989) study of reflection-in-action used by practising nurses utilizes interview and observation to draw conclusions about practitioners' reflective abilities. The study may have failed, however, to identify those practitioners who were reflecting-in-action, but were unable to make verbally explicit the knowledge behind their actions. Schon (1987) argues that practitioners may not be able to articulate the knowledge that they use and states explicitly, 'reflection-in-action is a process we can deliver without being able to say what we are doing' (Schon 1991).

However, Schon (1991) suggests that it is sometimes possible through a process of reflection-on-action to illuminate the knowledge used. This can be achieved both verbally and in writing. Writing about experiences in the form of a diary may be a useful tool for studying reflection because it may enable practitioners to make explicit the knowledge that is implicit in their actions. It may be concluded that the use of reflective diaries in conjunction with other methods may contribute to a more valid research approach.

CONCLUSION

The purpose of this review was to identify the important aspects of reflection and to pick out the skills required to be reflective. From an analysis of definitions and processes of reflection discussed in the literature, key stages in the reflective processes were identified and represented in the form of a model. An awareness of uncomfortable feelings and thoughts is followed by a critical analysis of feelings and knowledge leading to the development of a new perspective. Reflection, therefore, must involve the self and must lead to a changed perspective. It is these crucial aspects which distinguish reflection from analysis.

While the literature reviewed did not explicitly identify the cognitive and affective skills necessary to engage in reflection, these skills were implicit. They were identified as description, critical analysis, self-awareness, synthesis and evaluation. It is proposed that emphasis should be given to developing these skills in professional courses in order to facilitate the use of reflection as a learning tool.

Finally, issues of concern related to the empirical literature were discussed. The lack of clarity of the concept of reflection and the limited use of methods may have affected the validity of the studies reviewed. It is suggested that authors should define the concept, and when studying reflection-in-action incorporate the use of reflective diaries into the research methods.

From this review, it is evident that reflection, as a learning tool, is a necessary process in professional education. Practice is central to nursing education. If learning is to occur from practice, then reflection is vital (Benner 1984, Champion 1991). An understanding of the processes of reflection is important, and sufficient attention must be given to developing the skills required to engage in reflection.

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