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Healthcare practitioners' personal and professional values

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Abstract Personal and professional values of healthcare practitioners influence their clinical decisions. Understanding these values for individuals and across healthcare professions can help improve patient-centred decision-making by individual practitioners and interprofessional teams, respectively. We aimed to identify these values and integrate them into a single framework using Schwartz's values model. We searched Medline, Embase, PsycINFO, CINAHL and ERIC databases for articles on personal and professional values of healthcare practitioners and students. We extracted values from included papers and synthesized them into a single framework using Schwartz's values model. We summarised the framework within the context of healthcare practice. We identified 128 values from 50 included articles from doctors, nurses and allied health professionals. A new framework for the identified values established the following broad healthcare practitioner values, corresponding to Schwartz values (in parentheses): authority (power); capability (achievement); pleasure (hedonism); intellectual stimulation (stimulation); critical-thinking (self-direction); equality (universalism); altruism (benevolence); morality (tradition); professionalism (conformity); safety (security) and spirituality (spirituality). The most prominent values identified were altruism, equality and capability. This review identified a comprehensive set of personal and professional values of healthcare practitioners. We integrated these into a single framework derived from Schwartz's values model. This framework can be used to assess personal and professional values of healthcare practitioners across professional groups, and can help improve practitioners' awareness of their values so they can

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negotiate more patient-centred decisions. A common values framework across professional groups can support shared education strategies on values and help improve interprofessional teamwork and decision-making.

Keywords Clinical decision-making · Clinical education · Healthcare practitioners · Interprofessional practice · Personal values · Professional values · Schwartz's values model

Introduction

Values are basic convictions of what individuals or social groups consider right, good or desirable (Kluckhohn and Strodtbeck 1951; Rokeach 1973). They are stable and enduring beliefs that generally require prolonged social or educational processes to change (Bergman 1998). Values are not specific to given objects or situations (Rokeach 1968). For example values such as obedience and honesty are relevant in different situations including home, school or work, and in interactions with parents, friends or strangers (Schwartz 2012). Their stability and general relevance to different situations, distinguishes values from attitudes and opinions (Bergman 1998; Schwartz 2012), which also describe preferences towards some behaviours (Bergman 1998). In contrast to values, attitudes and opinions usually refer to evaluation of specific objects, actions or situations with some degree of favour or disfavour (Eagly and Chaiken 1993; Oskamp 2005). Furthermore, values are organised in relative importance to one another, whilst attitudes and opinions are not (Schwartz 1992).

In daily life, values influence individuals' behaviours, and guide their evaluation of people, choices and actions (Rokeach 1973; Schwartz 1992). Different individuals place varying priorities on given values (Rokeach 1973). However, not all values that are important to an individual are considered at the same time in a given context (Rokeach 1968; Schwartz 2012). Specific values are brought to the fore when they are relevant to the context (Rokeach 1973; Schwartz 2012). For example, a person who values independence may activate this value to guide their actions when their independence is threatened (Schwartz 2012). Finally, values operate at individual (e.g. personal) and collective levels (e.g. professional and cultural) of identity (Hofstede 1998; Meglino and Ravlin 1998; Schwartz 1999). Values overlap across these levels; some values are widely shared by a collective, whilst some values are acceptable according to the preferences of individuals (Dose 1997).

Personal and professional values of healthcare practitioners

Both the personal and professional values of healthcare practitioners may influence their decisions on patient care (Gross and Robinson 1987; Smith et al. 1991). Personal values guide people's behaviour and choices in their lives as individuals (Rokeach 1973; Schwartz 1992), whilst professional values guide their behaviour as a member of an occupational group (Eddy et al. 1994). Professional values are deliberately selected by the occupation as those values that shape the group's identity, principles and beliefs (Frankel 1989). These values enjoy high consensus on their importance within the group, and are generally defined within their code of ethics (Frankel 1989; Hussey 1996).

Personal values are formed from an early stage in life through learning from family, immediate communities and education institutions in a process called socialisation, a lifelong process of acquisition and dissemination of skills, behaviours, values and norms important for a person to function as member of a given society (Goslin and Aldous 1969). Professional values are developed later in life through socialisation within specific professional groups (Cohen 1981). In professional socialisation, entrants to a new profession bring their earlier personal values, and learn and internalise values of the new profession via formal training and observing role models in the profession (Kenny et al. 2003; Toit 1995). Some of the learners' personal values may already be aligned with the values of the profession (Rabow et al. 2010), whilst some are modified to align with those of the new profession to enable them to assume a new professional role and identity (Cohen 1981; Levy 1976). Although the values prioritised by different healthcare professions may differ, the process of socialisation is thought to be largely similar across the professions (Clark 1997).

There is a strong relationship between personal and professional values. Once an individual assumes a professional role, professional values substantially guide their conduct in the occupational environment (Cohen 1981; Toit 1995). However, some of the individual's personal values remain important to them in their daily life and continue to influence their professional practice (Cohen 1981; Levy 1976; Toit 1995). Professional values may not always equate with individuals' personal values in clinical situations, leading to personal–professional value conflicts (Levy 1976; Rabow et al. 2010). The specific personal or professional values that guide a practitioner's clinical decision-making vary with clinical contexts, and sometimes the practitioner is unable to clearly distinguish between their personal and professional values (Pipes et al. 2005). Nevertheless, professionalism requires practitioners to reflect on their values or value conflicts at all times to negotiate decisions that are in the best interests of their patients (Levy 1976; Rabow et al. 2010).

Information regarding practitioners' values is useful to different stakeholders including students, educators, managers, employers and policy makers (Martin et al. 2003; Pendleton and King 2002). Understanding values helps educators develop practitioners who can reflect on their values and those of their patients to promote patient-centred care (Epstein 1999; Martin et al. 2003). However, effective education on values requires valid instruments to assess both the learning by students and the efficacy of the teaching (Arnold 2002). Values assessment helps to improve the decision-making skills of the learner, the teaching curricula on values, and the level of professionalism in clinical practice (Lynch et al. 2004). Furthermore, because clinical decision-making is influenced by both personal and professional values (Gross and Robinson 1987; Smith et al. 1991), there is need to assess and understand both these value types in healthcare practitioners.

While a few studies have assessed both personal and professional values using separate instruments (Langille et al. 2010; Rassin 2008; Thurston et al. 1989), most have focused on only one or the other (Martin et al. 2003; McCabe et al. 1992; Rowley et al. 2000). A comprehensive assessment framework for personal and professional values which influence decisions on patient care can help improve practitioners' decision-making skills (Epstein 1999; Martin et al. 2003).

Furthermore, because modern healthcare is delivered by practitioners from a range of professions, it is important to understand practitioners' values within the context of interprofessional practice (Clark 1997). The healthcare professions share common goals focused on improving the health of patients (Parsell et al. 1998; Seedhouse 2002), and the principles promoted in their codes of ethics are largely similar (Gillon and Lloyd 1994).

Table 1 Schwartz values types, their motivational goal and the extracted healthcare values mapped into each value type

Schwartz value type	Motivational goal	Healthcare practitioner values mapped into Schwartz value type	Healthcare practitioner value type
Power	Social status and prestige, control or dominance over people and resources	Value items mapped into the power value type included: leadership from nursing, medicine and allied health (1–6); social or professional status from nursing (7), medicine (3) and dentistry (8, 9); structure or hierarchy from nursing (2) and medicine (3, 10, 11); and medical authority or paternalism from medicine (11) and allied health (12, 13)	Authority
Achievement	Personal success through demonstrating competence according to social standards	Competence, knowledge and research values were identified across all the professions in the included papers (1, 2, 6, 8, 10, 11, 13–20)	Capability
Hedonism	Pleasure or sensuous gratification for oneself	Pleasure from medicine and dentistry (9, 21); "I have quality time away from work", "my work brings me pleasure" (8) from dentists	Pleasure
Stimulation	Excitement, novelty, and challenge in life	Personal and intellectual stimulation values were mentioned on a Norwegian qualitative study on values central to nursing practice (2); and "exciting life" from the from nursing, medicine and dentistry that used the RVS framework (4, 5, 9, 21)	Intellectual stimulation
Self-direction	Independent thought and action—choosing, creating, exploring	Self-direction values from nursing, medicine, dentistry and allied health professions included items on freedom, independence, autonomy, education and self-direction for the patient (1, 2, 4, 5, 9, 11, 14, 18, 19, 21–32). Self-oriented values for self-direction included critical-thinking (11, 33), problem-solving (1, 17), imagination and creativity (3, 14), objectivity (13), self-regulation (6), and control of one's own work (3)	Critical-thinking
Universalism	Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature	Value items expressing acceptance of others, respect for others, advocacy, equality, equity, social justice, and upholding human dignity and patient rights were identified across all professions in the included studies (1, 8–11, 13, 15, 17–19, 21, 29–31, 34–45). Charity (17), socialism, solidarity, humanism (19) were other universalism values extracted	Equality

Table 1 continued

Schwartz value type	Motivational goal	Healthcare practitioner values mapped into Schwartz value type	Healthcare practitioner value type
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact	Many articles across the professions indicated the benevolent values of caring, helping, empathy, altruism, compassion (1–6, 8, 10, 11, 13–20, 22–24, 27–29, 31, 34, 37, 42, 46, 47). Some value items that stood out included; "attending to needs for help" (2) and helping people in "little things" (23) from nursing; and "primacy of patient welfare" (34) from medicine	Altruism
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide	Values of honour, integrity, honesty and morality were common across the professions (6, 8, 10, 11, 17, 18, 29, 31, 47–49). Other tradition values were duty (6, 10, 17), humility (1), temperance (17), and "ethics grounded in culture and history" (19)	Morality
Professionalism	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms	A value of adherence to standards and professional code was extracted from papers from nursing (38–40, 43). Self-discipline (14, 22), and "fitting in" and "going along" (23) were also identified from nursing. Professional behaviour and accountability values were extracted from nursing (18, 32), medicine (10, 15, 17) and allied health (1, 6). Other conformity values identified were self-awareness and team-work (11) and "I behave ethically" (8) from medicine and dentistry, respectively	Professionalism
Security	Safety, harmony, and stability of society, of relationships, and of self	Confidentiality and patient privacy were identified as important values across nursing, medicine and allied health (4, 5, 10–12, 18, 20, 31, 32, 37–39, 43, 50). Patient safety items were identified from nursing—"protect public from unsafe health products or practices" (20), and "provide safe and competent care" (25). Security, "protection of the environment", emotional stability, prudence, vigilance, self-protection were further values identified from medicine and nursing (4, 5, 9, 11, 17, 21, 48). Financial security values—"well-paid", "financial stability" and "earn a good living" were identified from dentists (8), whilst "personal financial perks and gains", and "a comfortable lifestyle" were identified from physicians (3)	Safety

Table 1 continued

Schwartz value type	Motivational goal	Healthcare practitioner values mapped into Schwartz value type	Healthcare practitioner value type
Spirituality	Meaning, coherence and inner harmony through transcending everyday reality	Only a few papers had items on spirituality. Spiritual reward (7), "fulfilling spiritual need of patients", "spiritual empowerment" (18), holism (48), hope (2), and religion and faith (46) were identified from nurses. Other spirituality values identified were optimism from physicians (11), "have harmony in life" from dentists (8), and inner harmony and salvation (9, 21) from the RVS for nurses, physicians and dentists (4, 5, 9, 21)	Spirituality

Cited papers in the table: (1) Aguilar et al. (2012); (2) Fagermoen (1997); (3) Hartung et al. (2005); (4) Rassin (2008); (5) Rassin (2010); (6) DiGiacomo (2004);(7) Bang et al. (2011); (8) Langille et al. (2010); (9) Becker et al. (1996); (10) Robins et al. (2002); (11) Stern (1996); (12) Congress (1992); (13) Sine and Northcutt (2007); (14) Altun (2003); (15) DeLisa et al. (2001); (16) Peloquin (2007); (17) Rowley et al. (2000); (18) Shahriari et al. (2012); (19) Valdés et al. (2002); (20) Weis and Schank (2000); (21) McCabe et al. (1992); (22) Altun (2002); (23) Kelly (1991); (24) Kirkevold (1992); (25) Lui et al. (2008); (26) Moore (2000); (27) Pang et al. (2009); (28) Raatikainen (1989); (29) Thurston et al. (1989); (30) Vezeau (2006); (31) Weis et al. (1993); (32) Alfred et al. (2011); (33) Shinyashiki et al. (2006); (34) Diaz and Stamp (2004); (35) Eddy et al. (1994); (36) Fahrenwald et al. (2005); (37) Leners et al. (2006); (38) Lin et al. (2010); (39) Lin and Wang (2010); (40) Shaw and Degazon (2008); (41) Tompkins (1992); (42) Touchstone (2010a); (43) Weis and Schank (1997); (44) Wright and Carrese (2001); (45) Gallagher (2004); (46) Schank and Weis (1989); (47) Touchstone (2010b); (48) Hoyuelos et al. (2010); (49) Martin et al. (2003); (50) Weis and Schank (2009)

Principles such as putting the patients' interests above self-interests, avoiding harm to patients, and equitable access to healthcare, apply to all healthcare professions (Beauchamp 2007). As such, a common values framework that fosters a shared understanding of professionalism across the professions is essential to promote interprofessional practice (McNair 2005). Such a common framework can assist educators develop shared strategies for teaching and assessing values across professional groups (McNair 2005), and it can also help different professional groups understand each other's value priorities to facilitate improved teamwork, interprofessional decision-making and quality of patient care (Glen 1999; McNair 2005).

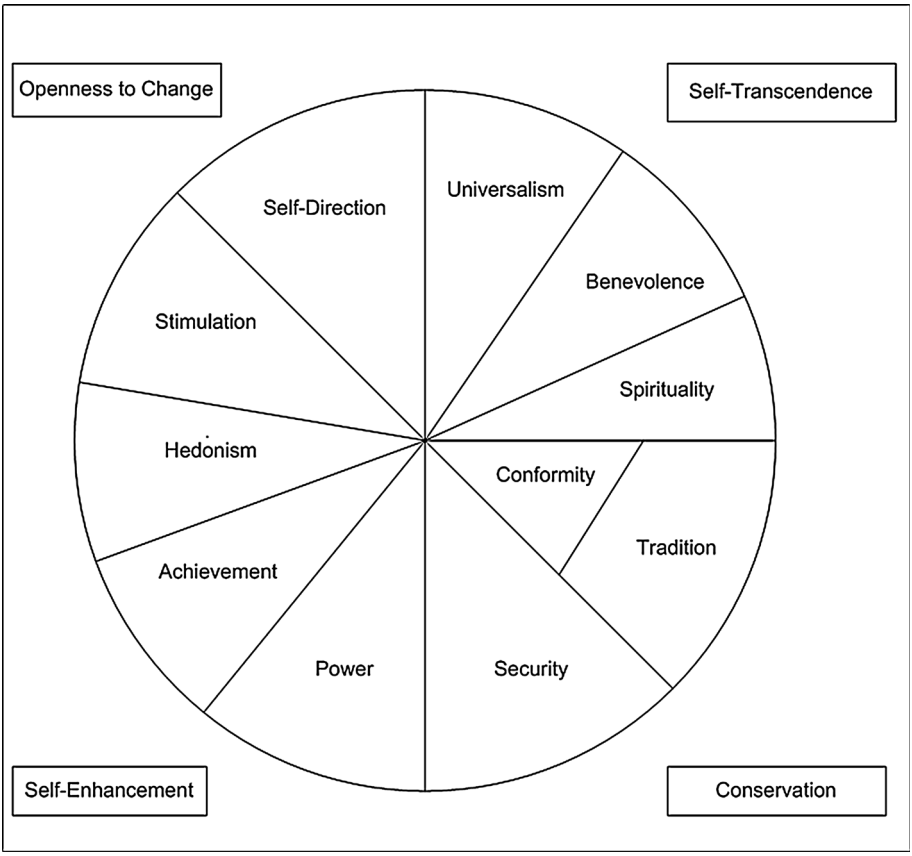

Fig. 1 Schwartz structure of value relations. Values show greater compatibility if they express a more similar motivational goal, and will locate closer to each other in the structure of values. On the other hand, values show greater conflict if they express opposing motivational goals, and will locate further from each other. Values in the structure are also aligned on two major dimensions: (1) self-enhancement versus self-transcendence. This separates values that emphasise advancing self-interests (power, achievement, hedonism) from those that emphasize promoting the interests of others (universalism and benevolence), (2) openness to change versus conservation. This separates values that emphasize independent action, thought and feeling, and embracing new experiences (self-direction, stimulation, hedonism) from those that emphasize self-restriction, order and resistance to change (security, conformity and tradition). Hedonism shares elements of both openness to change and self-enhancement. Adapted (Schwartz 1992)

Schwartz's values model

We chose Schwartz's values model as a theoretical framework for integrating healthcare practitioners' personal and professional values (Schwartz 1992, 1994). The model describes ten broad values, often referred to as value types, which are defined as motivational goals (Table 1): power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. These broad values comprehensively cover all values important in guiding decision-making in all cultures (Braithwaite and Law 1985). Schwartz's model also defines a structure of value relations, which proposes possible compatibilities and conflicts among values—Fig. 1 (Rohan 2000). Evidence for the discriminant validity, predictive validity and reliability of the Schwartz values and structure of value relations has been collected across different cultures (Schwartz 1992, 1994). In this study, we aimed at extending Schwartz's generic values framework (Schwartz 1992) to healthcare professions to enhance theory in the study and assessment of practitioners' values in healthcare education and practice.

Aim

Our primary aim was to identify the collective set of personal and professional values of different healthcare professional groups through a systematic literature review. A previous review identified values of physicians only (Van De Camp et al. 2004). Personal values are generally identified from literature on human behaviour and interpreted within relevant theories on human behaviour (Rokeach 1973; Schwartz 1992). They are applicable to research across different professional groups, but are not defined within the context of healthcare practice to provide insightful interpretations about decisions on patient care. On the other hand, professional values are usually identified from professional ethics codes, but these generally do not cover all values that guide decisions on patient care (Pope and Bajt 1988).

Therefore, our secondary aim was to integrate the identified personal and professional values of healthcare practitioners into a single comprehensive framework within a validated theory on values (Schwartz 1992). The new framework for healthcare practitioner values needed to meet the following functions: comprehensively cover all personal and professional values that could influence decisions on patient care; facilitate the measurement of the values within the context of healthcare practice; facilitate interpretation of practitioners' values within both human behaviour and healthcare practice contexts; and provide a theory on which values were likely to be compatible or in conflict in clinical decision-making.

Methods

Literature search

We searched Medline, Embase, PsychINFO, CINAHL and ERIC databases for empirical studies, review papers, and letters or opinion papers measuring or discussing values in healthcare using a search strategy developed by the team. The strategy followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

guidelines (Moher et al. 2009). The search was limited to English language and the last three decades (Jan 1982–June 2012).

Our search strategy combined controlled vocabulary terms such as Medical Subject Heading (MeSH) and free text terms for social values, values, professional values, professionalism, ethics, attitudes, student, health professional, health occupations (Fig. 2).

Inclusion criteria

We were interested in lists of values from literature on healthcare professions. We included all papers that described measurement or review of two or more named values of potential relevance to clinical decision-making. As we were interested in the values themselves rather than the quality of the study, we did not exclude studies on the basis of quality of research design nor reporting, if the studies were explicit on the value items they discussed or measured (Tong et al. 2010).

In order to identify only the values held by individuals, the values that influence their individual decision-making, we excluded literature on values around decisions that are

1. social values.mp. or Social Values/
2. values.mp.
3. Professional values.mp.
4. "Attitude of Health Personnel"/ or Attitude/ or attitude.mp.
5. (Values and (student$ or physician$ or doctor$ or professional$ or occupational or nurs$ or practice$ or social work$ or physiotherap$ or physical therap$ or mental health or practitioner$)).m_titl.
6. students/ or students, health occupations/ or students, dental/ or students, medical/ or students, nursing/ or students, pharmacy/ or students, premedical/
7. exp Health Occupations/ or exp Health Personnel/ or health professional.mp.
8. Ethics, Professional/ or Ethics, Dental/ or Ethics, Medical/ or Ethics, Clinical/ or Ethics, Nursing/ or Ethics, Institutional/ or Ethics/ or "Codes of Ethics"/ or Ethics, Pharmacy/
9. professionalism.mp.
10. 1 or 2 or 3 or 4
11. 6 or 7
12. 5 and 8
13. 8 and 10 and 11
14. 3 and 9
15. 12 or 13 or 14
16. limit 15 to (English language and yr="1982 -Current")

Fig. 2 Search strategy in Medline

imposed on individuals by external forces such as legislation, organisations or communities or the society. Therefore, we excluded literature on ethical issues such as abortion, euthanasia, organ donation, assisted reproduction, surrogate decision-making, as well as on community, organisation and societal values. We also excluded literature on non-healthcare students and professionals. Finally, we excluded full papers that discussed values in general but did not name any specific value. We also excluded full papers where a specified value, e.g. caring, was the main focus of the paper, but the paper did not yield any other value items for extraction, and the value under study was identifiable in other papers that had multiple explicit value items.

Study selection

Using our inclusion criteria, one author (MM) screened the retrieved titles and abstracts for potential papers. We reviewed the potential abstracts as a team and resolved conflicts by consensus. MM then retrieved and screened full papers from the selected abstracts. The selected papers were reviewed by the team, and conflicts were resolved by consensus.

Data extraction

We used a piloted form to extract the following characteristics from the papers meeting our inclusion criteria: study design; professional group; country where study was undertaken; value type studied; instrument used to measure values; source of value items for instrument; basis for instrument used; value or value statements. We extracted personal values from items in surveys used to measure personal values, and professional values from items in surveys, professional ethics codes and professional standards guidelines used to measure professional values. We also extracted professional values from the body text of qualitative study and review papers on professional values in clinical education and practice. No qualitative or review papers were identified on personal values of healthcare practitioners.

Within the constraints of a psychological scale, shorter and simpler items are preferable to obtain accurate relevant information (Leung 2001). Thus, we aimed to identify single word or short phrase definitions which captured discrete values for accurate measurement. Accordingly, MM coded long value statements into shorter items and preferably single word items (e.g. "I belong to a respected profession" was coded to "social recognition", "foster trust with patients" to "trust", and "attend to needs for help" to "helpful"). MM also merged synonymous value items into single items. The team reviewed the recoded value items and reached consensus on the final items through a Delphi process (Murry Jr and Hammons 1995), in which MM prepared the list of recoded values for the other four authors to review. Reviewed items from all authors were collated by MM to highlight where consensus and differences existed. The latter were resolved by discussion and review by the whole group.

Synthesis of identified values using the Schwartz's values model

We used framework synthesis (Dixon-Woods 2011), employing Schwartz's values model to integrate values extracted from the included papers. Framework synthesis is a methodology for integrating data from qualitative studies that involves a preliminary identification of themes or framework against which data from included studies are mapped (Carroll et al. 2011; Dixon-Woods 2011). It has been widely used in systematic

reviews of qualitative studies in health policy and education (Brunton et al. 2006; Carroll et al. 2011; Oliver et al. 2008). Framework synthesis using a previously established framework enables large amounts of data to be summarised in a consistent and structured manner within a reasonable timeframe (Carroll et al. 2011). However, framework synthesis does not provide an in-depth analysis of phenomena from participants' view-points, or an understanding of "why" and "how" about the phenomena being studied, as is the case in most qualitative methods. Nevertheless, it was not our objective in this study to answer "why" and "how" values were chosen by particular participants. Rather, our goal was to organise extracted values into a coherent theoretical framework that facilitated their measurement and theory on the relations among them. Therefore, framework synthesis was the best suited analysis method for our goal in this study.

Schwartz previously proposed an 11th value type of spirituality, but this was not conceived consistently across cultures (Schwartz 1992). However, because of the possible relevance of this value to patient care (Sheldrake 2010), we retained it in the Schwartz's values model we used in our framework synthesis. We mapped each value item extracted from the included studies into the best-fitting Schwartz value type by defining the motivational goal it represented. We used a similar Delphi process as before to review the mapping and reach consensus as a team.

Deriving a new framework for healthcare practitioner values from Schwartz's values model

Following our framework synthesis, we derived healthcare practitioner value types from Schwartz's 11 value types. In this task, we followed an approach common in instrument development, whereby a Delphi process is used to reach consensus on the instrument items to include. Experts rank items in order to establish priority items for inclusion in the instrument (Yousuf 2007). In our case, for each set of identified value items mapped into a Schwartz value type, four researchers independently identified and ranked the top three value items which they felt best characterised the value set within the context of healthcare practice. We chose ranking because it forced us to evaluate and differentiate the value items we had identified from literature. We tallied the value rankings from everyone to get overall ranks within each value set (i.e. identified values within a Schwartz value type). We resolved tied ranks by group discussion. The top ranked value in each value set was chosen as the healthcare practitioner value type corresponding to the given Schwartz value type in the new healthcare practitioner values framework developed from our framework synthesis. The healthcare practitioner values framework can be employed to measure value priorities of practitioners by asking them to rank the practitioner value types in order of their importance as guiding principles in their clinical practice.

After establishing values for the healthcare practitioner values framework, we derived a structure of relations among the values—similar to the structure of value relations in Schwartz's values model (Schwartz 1992). We mapped healthcare practitioner value types onto positions occupied by corresponding Schwartz values types in Schwartz's theoretical structure of value relations (Fig. 1). Schwartz structure of value relations separates four groups of values: values that primarily serve individual interests (*self-enhancement values*) from values that primarily serve collective interests (*self-transcendence values*); and values that emphasise independent thought and flexibility to change (*Openness to change values*) from values that emphasise self-restriction, order and resistance to change (*conservation*)

(Schwartz 2012). Values within each group are compatible as they share similar motivational goals, and are in conflict with values in the group they are separated from as they express opposing motivational goals.

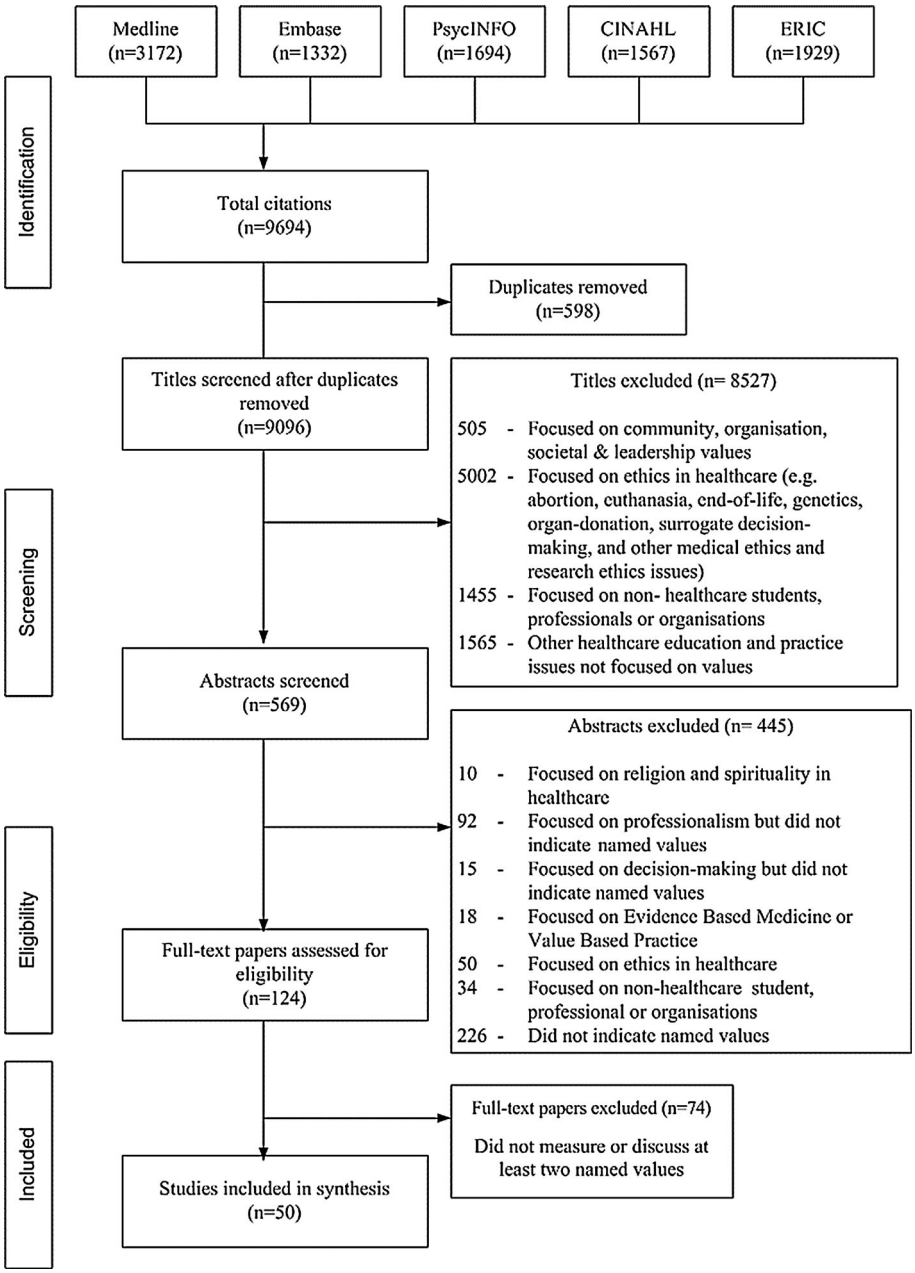

Fig. 3 Literature search results

Table 2 Characteristics of included studies

Paper	Study design	Professional group	Country	Value type	Values instrument	Source of values for instrument	Basis for instrument
Aguilar et al. (2012)	Qualitative	Occupational therapists	Australia	Professional			
Alfred et al. (2011)	Survey	Nurses	USA	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Altun (2002, 2003)	Survey	Nurses	Turkey	Professional	AACN values	Ethics code (AACN)	Professional ethics code
Bang et al. (2011)	Survey	Nurses	South Korea	Professional	NPVS (Yeun)	Literature	Other
Becker et al. (1996)	Survey	Dentists	USA	Personal	Rokeach Values Survey	Literature on values and psychology theory	Personal values
Congress (1992)	Review	Social workers	USA	Professional			
DeLisa et al. (2001)	Survey	Physicians	USA	Professional	ABIM values	Ethics code (ABIM)	Professional ethics code
Diaz and Stamp (2004)	Review	Physicians	USA	Professional			
DiGiacomo (2004)	Review	Physical therapists	USA	Professional			
Eddy et al. (1994)	Survey	Nurses	USA	Professional	AACN values	Ethics code (AACN)	Professional Ethics Code
Fagermoen (1997)	Survey and qualitative	Nurses	Norway	Professional			
Fahrenwald et al. (2005)	Review	Nurses	USA	Professional			
Gallagher (2004)	Review	Nurses	UK	Professional			
Hartung et al. (2005)	Survey	Physicians	USA	Personal	PVIPS	Literature, consultation and psychology theory	Personal Values

Table 2 continued

Paper	Study design	Professional group	Country	Value type	Values instrument	Source of values for instrument	Basis for instrument
Hoyuelos et al. (2010)	Survey	Nurses	Spain	Professional	NPVS (Weis)	Ethics code (ANA)	Professional Ethics Code
Kelly (1991)	Qualitative	Nurses	UK	Professional			
Kirkevold (1992)	Qualitative	Nurses	Norway	Professional			
Langille et al. (2010)	Survey	Dentists	Canada	Personal	Schwartz Values Survey	Literature and psychology theory	Personal values
				Professional	DVS	Literature and consultation	Other
Leners et al. (2006)	Survey	Nurses	USA	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Lin et al. (2010)	Survey	Nurses	Taiwan	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Lin and Wang (2010)	Survey	Nurses	Taiwan	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Lui et al. (2008)	Survey	Nurses	Hong Kong	Professional	NCHK values	Ethics code (NCHK)	Professional ethics code
Martin et al. (2003)	Survey	Nurses	USA	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics Code
McCabe et al. (1992)	Survey	Physicians and dentists	USA	Personal	Rokeach Values Survey	Literature and psychology theory	Personal values
Moore (2000)	Review	Nurses	USA	Professional			
Pang et al. (2009)	Qualitative	Nurses	China	Professional			
Peloquin (2007)	Review	Occupational therapists	USA	Professional			
Raatikainen (1989)	Review	Nurses	Finland	Professional			

Table 2 continued

Paper	Study design	Professional group	Country	Value type	Values instrument	Source of values for instrument	Basis for instrument
Rassin (2008, 2010)	Survey	Nurses	Israel	Personal and	Rokeach Values Survey	Literature and psychology theory	Personal Values
				Professional	INU values	Ethics code (INU)	Professional ethics code
Robins et al. (2002)	Survey and Qualitative	Physicians	USA	Professional	ABIM values	Ethics code (ABIM)	Professional ethics code
Rowley et al. (2000)	Survey	Physicians	USA	Professional	AOS values	Consultation	Other
Schank and Weis (1989)	Survey and Qualitative	Nurses	USA	Professional			
Shahriari et al. (2012)	Qualitative	Nurses	Iran	Professional			
Shaw and Degazon (2008)	Qualitative	Nurses	USA	Professional			
Shinyashiki et al. (2006)	Survey	Nurses	Brazil	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Sine and Northcutt (2007)	Qualitative	Paramedics	USA	Professional			
Stern (1996)	Qualitative	Physicians	USA	Professional			
Thurston et al. (1989)	Survey	Nurses	USA	Personal	Rokeach Values Survey	Literature and psychology theory	Personal values
				Professional	AACN values	Ethics code (AACN)	Professional ethics code
Tompkins (1992)	Survey	Nurses	USA	Professional	AACN values	Ethics code (AACN)	Professional Ethics Code
Touchstone (2010a, b)	Review	Paramedics	USA	Professional			
Valdés et al. (2002)	Qualitative	Mental health practitioners	Cuba	Professional			

Table 2 continued

Paper	Study design	Professional group	Country	Value type	Values instrument	Source of values for instrument	Basis for instrument
Vezeau (2006)	Review	Nurses	USA	Professional			
Weis et al. (1993)	Survey	Nurses	USA	Professional	AACN values	Ethics code (AACN)	Professional ethics code
Weis and Schank (1997, 2000, 2009)	Surveys	Nurses	USA/UK; USA; USA	Professional	NPVS (Weis)	Ethics code (ANA)	Professional ethics code
Wright and Carrese (2001)	Survey and qualitative	Physicians	Canada	Professional			

Abbreviated names are used in the table for the instruments and the sources of the value items

NPVS Nurses Professional Values Scale. One scale developed by Weis et al., another by Yeun et al. *ANA* American Nurses Association, *AACN* American Association of Colleges of Nursing, *ABIM* American Board of Internal Medicine, *PVIPS* Physician Values in Practice Scale, *DVS* Dental Values Scale, *NCHK* Nursing Council of Hong Kong, *INU* Israeli Nursing Union Ethics Committee, *AOS* Academic Orthopedic Society

Table 3 Range of healthcare practitioner values by professional group and values instrument or type of publication paper

Professional group	instrument/ paper type	Power	Achievement	Hedonism	Stimulation	Self-direction	Universalism	Benevolence	Tradition	Conformity	Security	Spiri-tuality
All	Rokeach Values Survey (4, 5, 9, 21, 29)	X	X	X	X	X	X	X	X	X	X	X
Nurses	Nursing Professional Values Scale (Weis) (20, 32, 33, 37–39, 43, 48–50)		X			X	X	X	X	X	X	
	Nursing Professional Values Scale (Yeun) (7)	X	X			X	X	X	X	X		X
	American Association of Colleges of Nursing (AACN) values (14, 22, 29–31, 35, 36, 40, 41)		X			X	X	X	X	X	X	
	Nursing Council of Hong Kong values (25)		X			X	X	X	X	X	X	
	Israeli Nursing Union values (4, 5)	X	X			X	X	X	X	X	X	
	Qualitative (2, 18, 23, 24, 27, 40, 46)	X	X		X	X	X	X	X	X	X	X
	Review (26, 28, 30, 36, 45)		X			X	X	X				X

Table 3 continued

Professional group	instrument/ paper type	Power	Achievement	Hedonism	Stimulation	Self-direction	Universalism	Benevolence	Tradition	Conformity	Security	Spiri-tuality
Physicians	American Board of Internal Medicine (ABIM) values (10, 15)	X	X			X	X	X	X	X	X	
	American Orthopaedic Society values (17)		X			X	X	X	X	X	X	
	Physician Values in Practice Scale (3)	X	X			X	X	X			X	
	Qualitative (11, 44)	X	X			X	X	X	X	X	X	X
	Review (34)		X			X	X	X	X	X	X	
Dentists	Dental Values Scale (8)	X	X	X			X	X	X		X	X
Allied health	Qualitative (1, 13, 19)	X	X			X	X	X	X	X		
	Review (6, 12, 16, 42, 47)	X	X			X	X	X	X	X	X	

X = the Schwartz value type extracted from paper

Cited papers in the table: (1) Aguilar et al. (2012); (2) Fagermoen (1997); (3) Hartung et al. (2005); (4) Rassin (2008); (5) Rassin (2010); (6) DiGiacomo (2004);(7) Bang et al. (2011); (8) Langille et al. (2010); (9) Becker et al. (1996); (10) Robins et al. (2002); (11) Stern (1996); (12) Congress (1992); (13) Sine and Northcutt (2007); (14) Altun (2003); (15) DeLisa et al. (2001); (16) Peloquin (2007); (17) Rowley et al. (2000); (18) Shahriari et al. (2012); (19) Valdés et al. (2002); (20) Weis and Schank (2000); (21) McCabe et al. (1992); (22) Altun (2002); (23) Kelly (1991); (24) Kirkevold (1992); (25) Lui et al. (2008); (26) Moore (2000); (27) Pang et al. (2009); (28) Raatikainen (1989); (29) Thurston et al. (1989); (30) Vezeau (2006); (31) Weis et al. (1993); (32) Alfred et al. (2011); (33) Shinyashiki et al. (2006); (34) Diaz and Stamp (2004); (35) Eddy et al. (1994); (36) Fahrenwald et al. (2005); (37) Leners et al. (2006); (38) Lin et al. (2010); (39) Lin and Wang (2010); (40) Shaw and Degazon (2008); (41) Tompkins (1992); (42) Touchstone (2010a); (43) Weis and Schank (1997); (44) Wright and Carrese (2001); (45) Gallagher (2004); (46) Schank and Weis (1989); (47) Touchstone (2010b); (48) Hoyuelos et al. (2010); (49) Martin et al. (2003); (50) Weis and Schank (2009)

Results

Literature search and characteristics of included studies

Literature search results are shown in Fig. 3. A total of 9694 citations were retrieved. Once ineligible and duplicate papers were excluded, there were 50 papers included in the framework synthesis (Aguilar et al. 2012; Alfred et al. 2011; Altun 2002, 2003; Bang et al. 2011; Becker et al. 1996; Congress 1992; DeLisa et al. 2001; Diaz and Stamp 2004; DiGiacomo 2004; Eddy et al. 1994; Fagermoen 1997; Fahrenwald et al. 2005; Gallagher 2004; Hartung et al. 2005; Hoyuelos et al. 2010; Kelly 1991; Kirkevold 1992; Langille et al. 2010; Leners et al. 2006; Lin et al. 2010; Lin and Wang 2010; Lui et al. 2008; Martin et al. 2003; McCabe et al. 1992; Moore 2000; Pang et al. 2009; Peloquin 2007; Raatikainen 1989; Rassin 2008, 2010; Robins et al. 2002; Rowley et al. 2000; Schank and Weis 1989; Shahriari et al. 2012; Shaw and Degazon 2008; Shinyashiki et al. 2006; Sine and Northcutt 2007; Stern 1996; Thurston et al. 1989; Tompkins 1992; Touchstone 2010a, b; Valdés et al. 2002; Vezeau 2006; Weis and Schank 1997, 2000, 2009; Weis et al. 1993; Wright and Carrese 2001).

The characteristics of the included papers are shown in Table 2. The papers were diverse with respect to study design, country of origin, professional groups studied, and survey instruments used. Most papers identified were from nursing (31, 62 %), 10 (20 %) from medical practitioners, and 9 (18 %) from allied health professionals. The papers consisted of 11 reviews, 13 qualitative and 26 quantitative research papers. Seventeen quantitative papers measured values using instruments based on professional ethics codes; three used personal values instruments only; three used both ethics code based instruments and personal values instruments; one used a personal values instrument and an instrument developed from consultation; one used a list of values identified from literature; and one used an instrument developed from consultation (Table 2).

Synthesis of identified values using Schwartz's values model

A total of 170 value items were extracted from the included papers with 128 unique value items remaining after merging synonymous values. The mapping of extracted values into each Schwartz value type, and the derived healthcare practitioner value types in the new healthcare practitioner values framework are reported in Table 1. The range of values extracted into the Schwartz framework by professional group, measurement instrument and publication type are reported in Table 3. The mapping rationales for some values into the Schwartz tradition and conformity value types are discussed as an example in Appendix 1 and the ranking results on the naming of the healthcare practitioner value types for each Schwartz category of extracted values are shown in Appendix 2.

Healthcare practitioner values framework

Following framework synthesis, we derived the following healthcare practitioner value types from corresponding Schwartz value types (given in parentheses): authority (power), capability (achievement), pleasure (hedonism), intellectual stimulation (stimulation), critical-thinking (self-direction), equality (universalism), altruism (benevolence), morality (tradition), professionalism (conformity), safety (security) and spirituality (spirituality).

Figure 4 shows the theoretical structure of relations among the healthcare practitioner value types as derived from Schwartz's values model.

Altruism, equality and capability were the most prominently identified healthcare practitioner value types in the reviewed literature (Table 3). Specific altruism values included altruism, compassion, caring and empathy; equality values included equality, human dignity, respect, and social justice; and capability values included excellence, competency and knowledge (Table 1). Morality and professionalism values types were also commonly identified across professional groups (Table 3).

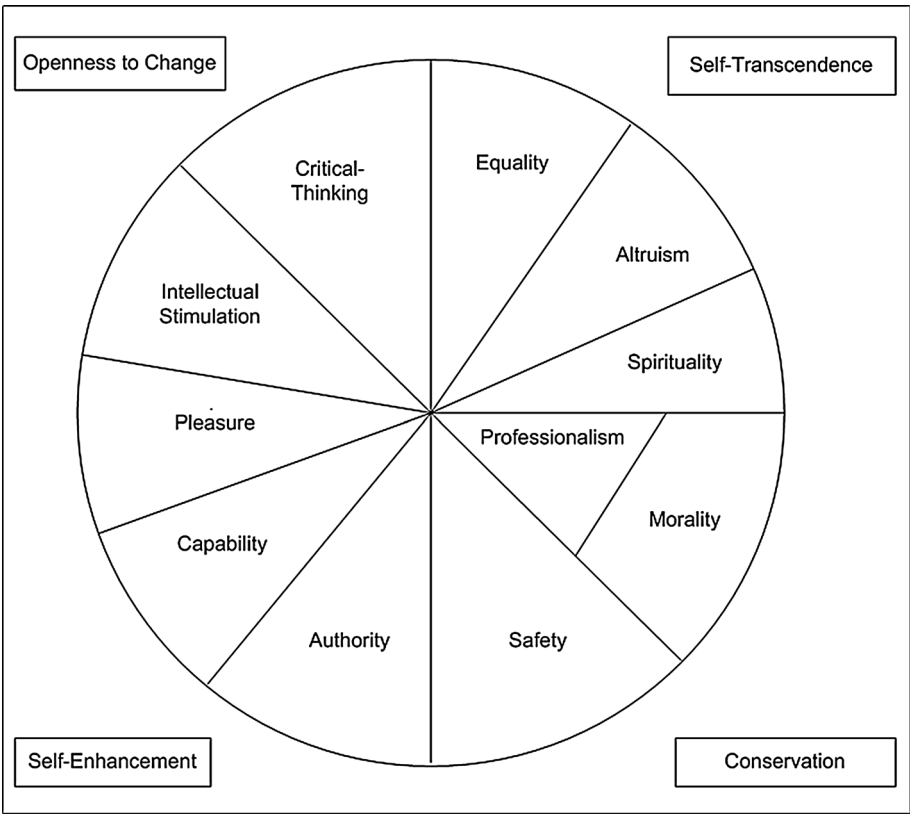

Fig. 4 Healthcare practitioners values: theoretical structure of value relations. This structure is derived from Schwartz's values model by mapping healthcare practitioner value types onto positions that are occupied by their matching value types in Schwartz's values model (see Fig. 1). Healthcare practitioner values show greater compatibility if they express a more similar motivational goal, and locate closer to each other in the structure of values. On the other hand, values show greater conflict if they express opposing motivational goals, and will locate further from each other. Values in the structure are also aligned on two major dimensions: (1) self-enhancement versus self-transcendence. This separates values that emphasize advancing self-interests (authority, capability, pleasure) from values that emphasize concern for the welfare and interests of others (equality, altruism), (2) openness to change versus conservation. This separates values that emphasize independent action, thought and feeling, and embracing new experiences (critical-thinking, intellectual-stimulation, pleasure) from those that emphasize self-restriction, order and resistance to change (safety, professionalism, morality, spirituality). Pleasure shares elements of both openness to change and self-enhancement. Adapted (Schwartz 1992)

Derived from Schwartz's self-direction value type, the healthcare practitioner critical-thinking value type included self-direction values for both the practitioner and the patient (Table 1). The safety healthcare practitioner value type was commonly identified within the context of patient safety, privacy and confidentiality (Table 1). Authority, intellectual-stimulation, pleasure and spirituality value types were identified less frequently than other values in the included papers (Table 3).

A theoretical structure of healthcare practitioner value relations that we derived from Schwartz's values model (Schwartz 1992) is shown in Fig. 4. The structure groups authority, capability, and pleasure into *self-enhancement values* as they emphasise advancing self-interests; equality and altruism into *self-transcendence values* as they emphasise concern for the welfare and interests of others. Critical-thinking, intellectual-stimulation and pleasure are grouped into *openness-to-change* values as they emphasize independent action, thought and new experiences; and spirituality, morality, professionalism and safety are grouped into *conservation values* as they emphasise order and preservation of traditions. We placed pleasure in both self-enhancement and openness-to-change groups, as it shares emphases with both groups (Schwartz 1992).

Discussion

We identified a comprehensive set of personal and professional values across healthcare professional groups and integrated these into a single framework derived from Schwartz's values model (Schwartz 1992). We derived 11 healthcare practitioner value types (authority, capability, pleasure, intellectual stimulation, critical-thinking, equality, altruism, morality, professionalism, safety and spirituality) and a structure of compatible and conflicting relations among them.

The values considered most relevant to healthcare practitioners in the literature reviewed were altruism, equality and capability. These values are explicit in many professional ethics codes and education standards of healthcare professionals (Rassin 2008, 2010; Robins et al. 2002; Rowley et al. 2000; Schank and Weis 1989; Shahriari et al. 2012; Shaw and Degazon 2008; Shinyashiki et al. 2006; Sine and Northcutt 2007). The motivational goals of altruism and equality (derived from Schwartz' benevolence and universalism values, respectively) are centred on selfless consideration of others' welfare, and respect for everyone's worth (Schwartz 1992). These goals are synonymous with those of healthcare practitioners in general—selflessly promoting the wellbeing and dignity of the patient, their families and communities (Medicine 2002; Pellegrino 2001).

Altruism and equality values were generally more emphasised than capability and critical-thinking values in the included studies. The more technically oriented values of capability (e.g. competence, intelligence) and critical-thinking (e.g. problem-solving, objectivity) may be taken as given, because of the minimum standards of qualification and competency mandated for healthcare professionals in most modern countries. For instance, patients generally expect to receive service from qualified and competent persons when they visit healthcare facilities (Paterson 2012), hence literature on values in healthcare may tend to emphasise humanistic more than competency values (Dossetor 1997; Markakis et al. 2000).

Other values considered important to all healthcare practitioners in the reviewed papers were morality and professionalism, critical-thinking and safety. Morality and professionalism are significant values in healthcare practice, because healthcare professionals have to

display the virtues and high ethical standards expected of them by the public (Swick 2000). Critical-thinking was frequently discussed within the context of supporting patients' autonomy, whilst safety was discussed within the context of patient safety, privacy and confidentiality. These observations highlight the emphasis presently placed on respecting patients' values and rights, and ensuring them safe and quality healthcare (Committee on Quality Health Care in America 2001; Paterson 2012).

Healthcare practitioner value types of authority, intellectual stimulation, spirituality and pleasure were identified less frequently than other values. They were generally less pronounced in professional ethics based instruments (DeLisa et al. 2001; Martin et al. 2003; Weis and Schank 2009) compared to personal value instruments (Becker et al. 1996; McCabe et al. 1992; Rassin 2008; Thurston et al. 1989). These values may receive limited attention in professional ethics based value instruments partly because they express motivational goals that conflict with some of the prominent values in healthcare practice. For instance, practitioners' authority values may oppose values supporting patient autonomy and self-direction (critical-thinking value type in our framework) (Beisecker 1990; Deber 1994). Similarly, stimulation values may oppose professionalism values that seek adherence to set standards; and spirituality values may oppose the more rational capability values. Another possible explanation is that the values identified in the literature are subject to reporting bias, and the values that writers report in literature may be different from ones they present in practice. A value like spirituality may be reported less in literature because practitioners may prefer to keep their religious beliefs separate from their professional life (Cadge et al. 2009).

Our theoretical structure of healthcare practitioner value relations (Fig. 4) summarises the value conflicts described above. The structure generally suggests how values that are predominantly personal in nature such as authority, pleasure, morality and spirituality interact with values that are strongly promoted by professional groups such as altruism, equality and capability. In agreement with some literature, our structure indicates possible conflicts between self-interest values and altruistic values (Coulehan and Williams 2001, 2003); and conflicts between values embracing independent action and change, and values preserving traditions and stability (Rosenbaum et al. 2004; Savulescu 2006). Examples of such conflicts include practitioners prioritising personal rewards over service to the patient (Coulehan and Williams 2001); students reconciling altruistic values promoted in formal education with self-interest values they observe in mentors in clinical practice (Coulehan and Williams 2003); and practitioners prioritising relationships with colleagues who show unprofessional conduct over initiating appropriate corrective actions (Rosenbaum et al. 2004).

The values we identified across healthcare professional groups in this review are largely similar to those identified by a systematic review on elements of professionalism for physicians (Van De Camp et al. 2004). Altruism, accountability, respect and integrity were the most frequent values in the review on physicians' professionalism (Van De Camp et al. 2004), corresponding to altruism, professionalism, equality and morality in our framework.

Strengths and limitations

Included papers in our study were from nursing, medicine, dentistry and allied health professions. Most papers identified were from nursing, and no papers were identified from some healthcare professional groups such as pharmacy, although this was included in the

search strategy. This presents a potential bias in the values identified but does represent the published literature within our search strategy—which did not include any known bias towards or against any particular healthcare profession.

Our review has a number of strengths. We followed robust methods in our literature search, and in the extraction and synthesis of values. Our new framework for healthcare practitioner values is comprehensive in its coverage of values because we identified values from a range of professional ethics codes, personal value studies, qualitative research studies, literature reviews, and letter and opinion papers from prominent healthcare professional groups. The individual studies from which we extracted values used a variety of methods to identify values including professional ethics codes (Leners et al. 2006; Y. Lin et al. 2010; Weis and Schank 2000), theories on human behaviour (Rokeach 1973; Schwartz 1992), participant observation (Stern 1996), literature review (Bang et al. 2011) and stakeholder consultation (Langille et al. 2010) enabling us to consolidate other works that used varying methods to identify values.

Our new values framework consolidates values identified across a range of healthcare professions into a single comprehensive framework that also incorporates practitioners' personal values. Attention to specific values prioritised by single professions may be lost in a generic comprehensive framework. However, we employed the well-established Schwartz's values model (Schwartz 1992) to integrate identified values, and the model has been shown to generically apply across cultures, and is thus likely to be of relevance across the different cultures of healthcare professional groups (Schwartz 1992; Schwartz et al. 2001; Schwartz and Sagiv 1995).

Implications

Our review contributes to methodology on the study of values of healthcare practitioners in two significant ways: first, by establishing a single framework for personal and professional values of healthcare practitioners that can be used to study practitioner values across different professional groups; and second, by conceptualising the values of healthcare practitioners within a defensible psychological theory, Schwartz's values model, that can improve the interpretation of practitioner value assessments. For example, the theoretical structure of value relations can allow researchers to hypothesise on which practitioner values may agree or conflict when assessed in specific contexts such as medical rationing or job burnout.

Professional socialisation in healthcare frequently exposes students to conflicting values (Borgstrom et al. 2010; Coulehan and Williams 2003). Understanding which values are potentially compatible or in conflict in clinical practice can assist educators design socialisation processes that help students understand and manage value conflicts that are likely in practice. Furthermore, clincal practice frequently challenges the boundary between practitioners personal and professional values (Pipes et al. 2005). Therefore, there is need to improve practitioners' awareness of their personal and professional values, and the possible compatibilities and conflicts among these values in clinical practice, to help them negotiate the best possible decisions for their patients. Our study provides a theoretical framework to help researchers investigate and understand such value relations in clinical education and practice.

Challenges in decision-making within multidisciplinary teams frequently arise from a lack of a common values framework guiding decision-making across professional groups (Berwick et al. 1997; McNair 2005; Glen 1999). We have established a common framework for healthcare practitioner values across different professional groups. Educators can use this framework to assess personal and professional values across healthcare professional groups, compare value priorities of different healthcare professional groups, and develop shared education strategies on values across professional groups. Finally, this common framework can help different professional groups understand each other's value priorities better so they can facilitate improvements in interprofessional teamwork and decision-making, and enhance the quality of patient care.

Future directions from this work will involve the development and validation of an instrument to measure healthcare practitioner values from our framework. This validation should empirically test the applicability of Schwartz's values model (Schwartz 1992) to the study of healthcare practitioners' values, as well the ability to interpret the derived healthcare practitioners value types within healthcare practice contexts.

Conclusion

This study identified personal and professional values across different healthcare professional groups, and established a theoretically informed framework that organises the values to facilitate their measurement as well as suggest possible compatible and conflicting relations among them. This framework can enhance the study and assessment of personal and professional values in healthcare education and practice to improve practitioner's clinical decision-making at both individual and interprofessional practice levels.

Appendix 1: Mapping example: mapping extracted values into Schwartz tradition and conformity values

Tradition and conformity values share a motivational emphasis of subordinating one's needs in favour of socially imposed expectations. Schwartz (1992) found these values hard to separate in structural analysis studies. The values commonly located intermixed in the structural analysis (Fig. 1). This intermixing of values because of shared motivation is also apparent in the healthcare morality and professionalism values that we derived from the two Schwartz values.

We mapped duty and integrity onto the Schwartz value type of tradition, and professionalism and accountability, which are closely related to duty and integrity, onto Schwartz value type of conformity. The theoretical justification we give is that: subordination in tradition values is to time-honoured or customary beliefs (Schwartz 1992)—duty and integrity in healthcare have transcended time and hence, fitted better into the tradition value type than the conformity one. In contrast subordination in conformity values is to contemporary rules and structures (Schwartz 1992) such as ethical codes and organisation rules—hence professionalism and accountability fitted better into conformity value type than the tradition one.

Appendix 2: Deriving healthcare practitioner value types for the healthcare practitioner values framework

Schwartz groups for healthcare values	Overall rank	Healthcare practitioner value type
Power		Authority
Authority	1	
Power	1	
Social recognition/status/image	2	
Leadership	3	
Achievement		Capability
Capability/competency/effectiveness	1	
Achievement/accomplishment	2	
Excellence	3	
Hedonism		Pleasure
Pleasure/enjoyment		
Stimulation		Intellectual stimulation
Intellectual stimulation	1	
Personal stimulation	2	
Excitement	3	
Self-direction		Critical-thinking
Critical thinking/problem solving	1	
Decision making	2	
Freedom/autonomy/independence	3	
Universalism		Equality
Equality/equity/equanimity	1	
Justice/rights/fairness/ethical	1	
Dignity	2	
Activism/advocacy	3	
Benevolence		Altruism
Altruism	1	
Empathy	2	
Benevolence	3	
Reliability/dependability	3	
Spirituality		Spirituality
Spirituality	1	
Optimism	2	
Faith	3	
Tradition		Morality
Integrity	1	
Morality	1	
Beneficence	2	
Nonmaleficence	3	
Tradition/culture	3	
Conformity		Professionalism

Schwartz groups for healthcare values	Overall rank	Healthcare practitioner value type
Professionalism	1	
Duty/service/obligation	2	
Conformity	3	
Security		Safety
Safety	1	
Confidentiality	2	
Security/prudence	3	
Protection	3	

For each set of value items extracted into each Schwartz's value type, four members of the group independently ranked the value items to identify the item that was most characteristic of the set within the context of healthcare practice. Individual rankings were collated, and the top ranked healthcare practitioner values within each value set was chosen as the healthcare practitioner value type for the set. Ties were resolved by team discussion.

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