
Article

Students' involvement in faculty research: Ethical and methodological issues

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Abstract

Faculty who engage students as participants in their qualitative research often encounter methodological and ethical problems. Ethical issues arise from the fiduciary relationship between faculty and their students, and violations of that relationship occur when the educator has a dual role as researcher with those students. Methodological issues arise from research designs to address these ethical issues. This conflict is particularly evident in faculty research on pedagogy in their own disciplines, for which students are necessary as participants but are captive in the relationship. In this article, the authors explore the issues of double agency when faculty involve students as participants in their research.

Keywords: students, research participants, vulnerable populations, ethics

Introduction

In their relationship with their students, faculty have a fiduciary responsibility to facilitate student learning toward a specific goal or set of objectives. A fiduciary relationship is one in which two individuals are unequal and the more powerful person is entrusted to protect the best interests of the less powerful or dependent person (Lemmens & Singer, 1998). This relationship is central to the education of students and the learning situations that are created for them. Owing to the inherent and inevitable power differential between educators and their students, however, the issue of trust becomes an essential element of this relationship. Thus, if faculty are engaged faithfully in their roles, the outcome is more likely to result in a learning environment that is facilitative of student learning and conducive to the promotion of critical reflection.

Faculty, especially those in university environments, also have a commitment to developing disciplinary knowledge through research on the phenomena of interest specific to their field of research. That knowledge includes the pedagogy of the discipline, recognizing that although some pedagogical issues are common to all disciplines, others are unique to particular disciplines. Research regarding these pedagogical issues is essential to the development of the knowledge of the discipline, including its epistemology and the process of how students come to know the substantive knowledge of the discipline. This need to research pedagogical issues creates an ethical dilemma for faculty, particularly if they are in a fiduciary relationship with the students whom they propose to involve as participants in their research studies.

In this article, we explore the ethical and methodological issues with regard to the involvement of students as participants in faculty research. Invariably, ethical issues are inherent in all research designs involving human respondents owing to an intrinsic tension between the needs of the researcher to collect personal data on which to base generalizations and the rights of the participants to maintain their dignity and privacy (Burns & Grove, 2001; Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada [TCPS], 2003; Orb, Eisenhauer, & Wynaden, 2001; see also Sect. 45 § 46 of the Public Welfare Act, 2001, which deals with the protection of human subjects). Ethical issues of confidentiality are inherent in those research studies in which the data provided by participants must be kept separate from their identities. When faculty researchers address personal or sensitive issues, often using qualitative methods, such as interviews, participant observation, focus groups, journals, or other personal documents, participants might perceive that the confidentiality of their information is of greater importance. Because of the potential for self-disclosure or psychological distress, certain qualitative research methods can be viewed as potentially risky for participants (Kavanaugh & Ayres, 1998). Ethical approaches to any research can reduce the actual risks for participants.

To address these issues, in both qualitative and quantitative research, it is incumbent on faculty to become aware of potential issues and use strategies to reduce participant risk and vulnerability. Potential issues of faculty conflicts of interest also need to be addressed (Lemmens & Singer, 1998). Without adequate attention to these important ethical issues, impairment of the trust relationship between faculty as researcher and student can result in damage to the research relationship. As well as affecting student willingness to engage as participants in any future research, such mistrust can also affect negatively the current fiduciary relationship between faculty member and student in the learning situation (Lemmens & Singer, 1998).

Background

Many studies on human responses have been conducted on university or college students, primarily because these students are readily available to academic researchers. Often, an important criterion for the selection of these participants is their accessibility or convenience. Although the same studies could be conducted with other young adults in the community, the ease of recruiting university and college students has made them a desired and often used participant group, particularly in psychology. This practice, and the practice of using student subject pools in psychological research, is not without controversy (Adair, 2001; Diamond & Reidpath, 1992; Sieber, 1999); the ethics of subject pools, the use of incentives to induce student participation, and the use of deception are all part of ongoing discussions.

Similar concerns are evident in the discipline of education. Faculty in teacher preparation programs address pedagogical issues in both their content and their research. As well as dealing with the ethics of research involving their own students as participants, faculty deal with the thorny ethical issue of their graduate students' conducting research on their own kindergarten to Grade 12 students (Donelson &

Rogers, 2004; Ebbs, 1996; Harrington et al., 1997; Husu, 2004). Teachers as practitioners might also study their own classroom interactions, thus involving their primary and secondary students through a variety of research methods based on self-reflective practice (Ebbs, 1996).

Students of disciplines such as medicine, nursing, and social work are recruited to studies in which questions of epistemology or pedagogy of the discipline are being addressed. Because the nature of the research questions in these studies makes student participation essential, they cannot be conducted with other groups of participants. Indeed, disciplinary pedagogy needs to be developed to teach the knowledge of the discipline most effectively. As well, in many disciplines in which evidence-based practice is the expectation, the scientific basis for pedagogical and curricular strategies must be developed through rigorous and ethical research. Unfortunately, other than the academic faculty of those disciplines, few researchers are interested in researching the pedagogy of the disciplines. The need for scientific evidence to support disciplinary pedagogy is translated into the necessity for faculty to study students in their own programs and their own teaching practices, with the ultimate goal of improving the learning situation for students in those disciplines.

Involving students as participants: Key issues

Whether students as participants are essential or convenient, faculty who involve students in their research will inevitably encounter ethical and methodological issues. As participants in research, students are considered captive if that research is conducted by researchers who are in status relationships with them, that is, their teachers (Canadian Nurses Association [CNA], 2002; Moreno, 1998; Schuklenk, 2000; TCPS, 2003). Captive participants are deemed to be those individuals who are in dependent or restricted relationships with the researcher such that their ability to consent voluntarily is compromised or limited by their vulnerability to the power of the researcher (Public Welfare Act, 2001; TCPS, 2003). Such vulnerability might in itself become a coercive element in the free and voluntary consent of students to participate in faculty research.

This status relationship is based on the differences between students and their teachers in terms of knowledge, skills, and attitudes in the discipline, and the desire of students to attain specific goals that require the assistance of their teachers. As a result of these inherent differences and the role of teachers in evaluating their students' progress, the social context of the teaching-learning relationship is characterized by differential power relations (Moreno, Caplan, & Wolpe, 1999). This power is mediated by the element of trust that is intrinsic to the relationship and moral commitment of teachers to function in the best interests of their students (Lemmens & Singer, 1998). The potential for abuse of the power in the relationship remains, nonetheless, an ethical issue to be addressed in qualitative and quantitative research.

As previously alluded to, an essential component of the fiduciary relationship is the trust on which it is based. Students engage in the teaching-learning relationship on the assumption that they are entering into a social contract with their teachers, that their teachers are committed to their learning, and that their teachers will not have conflicting loyalties or elements of self-interest in the relationship (Lemmens & Singer, 1998; Miller, Rosenstein, & DeRenzo, 1998). A key component of that social contract is the expectation that the ethical principles of respect for the dignity of the person, beneficence, nonmaleficence, and justice will prevail in the teaching-learning situation, as they do in the research relationship (Moreno, 1998; Orb et al., 2001).

How one views this situation depends on the conceptual ethical framework that is used as the context for analysis of the situation (Schuklenk, 2000). Most codes for ethical research refer to principles of ethical action, including the underlying beliefs sustaining those actions (CNA, 2002; TCPS, 2003). In one framework, the principles of autonomy, beneficence, nonmaleficence, and justice are commonly referenced (Orb et al., 2001), although no hierarchy of these principles is provided to guide decision

making in the research process. In a second framework, utilitarianism, the ends justify the means, thus suggesting that faculty who recruit students as participants and rely on the coercive aspect of the relationship to encourage participation are justified if the findings of the studies are important to the discipline and to society as a whole. From this perspective, compromises are made between the researcher's fiduciary relationship with participants and the utility of the findings of the research. A third framework, deontological ethics, considers individuals to be moral agents and is concerned with the motivation for action and a basic respect for autonomy of the individual. Teachers as researchers who strive for ethical practice within this framework are concerned with morally adequate action (moral agency) and with the treatment of participants as individuals, reflecting respect for their being and not for their use (Schuklenk, 2000). Thus, within this framework, researchers would be motivated by respect for their participants and their learners.

Faculty in double agency

When teachers engage their students as participants in research studies, they assume double agency (Edwards & Chalmers, 2002) or divided loyalties (Bell & Nutt, 2002) with their students and might experience conflicts of interest and threats to ethical principles in the relationship (Lemmens & Singer, 1998). Double agency refers to fulfilling two roles simultaneously in relation to the same individuals (Edwards & Chalmers, 2002), as teachers do when they are also researchers with their students as their participants. Because of this threat, faculty who recruit study participants from students in their courses or programs might experience conflicting loyalties as teacher and as researcher. Miller et al. (1998), in discussing similar dilemmas for physicians engaged in clinical research with patients, have stated that researchers must be guided by a conscientious moral framework to ensure professional integrity in the process. Regardless of the intents of the researcher, there might be the perception of a conflict of interest based on the actions of the researcher and the dependence of the participants (Lemmens & Singer, 1998). Because of this need, researchers in double agency are held to higher ethical standards of minimal risk to reduce potential risks to vulnerable participants (Public Welfare Act, 2001; TCPS, 2003). Ethical threats related to double agency are most apparent in specific aspects of the research process: recruitment, the informed and voluntary consent process (risks and benefits), data collection, participant withdrawal, anonymity, and confidentiality in the research process. Although these threats exist, the need for the research might create an imperative that it be conducted. Identifying areas of potential threats to the ethical conduct of the research during the design process might allow for the development of strategies to manage these threats and thereby reduce the potential for harm to participants.

Recruitment and voluntary consent

When researchers design a study, they generally do so with goals for enrolment of participants to satisfy the requirements of sampling and rigor in the design and data collection. Faculty who conduct studies involving their students as participants often are challenged to recruit a specified number of students to participate. In their zeal to conduct the research process appropriately, they might inadvertently exert pressure on students to participate (Ebbs, 1996). This pressure is often subtle but can also be overt in terms of incentives to participate, as with faculty who offer a small percentage of the final course grade as a bonus to those students who volunteer for their studies (Ferrari & McGowan, 2002). Students might not feel free to refuse participation despite their concern that such participation is onerous or demanding and might affect their learning. Most students in professional educational programs are adults. In the discipline of education, many of the students involved in the study might be underage, thus needing their parents' permission to participate.

The pressure to participate might be perceived rather than actual and might also not be intended by the researcher/faculty. These fears generally arise from the inherent power relationships between learners and their educators. Students, if they refuse to participate, might anticipate possible risks to future

relationships with faculty and fear repercussions, such as lower grades, fewer learning opportunities, lower evaluative outcomes, or slower progress in general. At best, student motivation to participate might be related to a desire to please faculty with whom they have positive relationships. If the study is of a pedagogical nature, students might also have the illusion that the new approach or teaching strategy is more beneficial than current practice and fear that their progress in the program will somehow be jeopardized by their not participating in the study. In programs that include courses on research, participation might also be presented as the opportunity for learners to understand the research process better from the perspective of participant (Bowman & Waite, 2003).

In some instances, faculty might recruit those students for whom they have direct and current teaching responsibilities. The pressure on students to participate in these situations is great, regardless of whether the pressure is perceived or actual, and therefore it is essential that the issues be addressed. Although some might suggest that this situation is inherently unethical, others have asserted that the research process can be managed ethically if the pressure on students to participate can be moderated in some way (Bell & Nutt, 1999; Edwards & Chalmers, 2002; TCPS, 2003). To avoid this direct pressure on their current students, faculty might seek participants among other students in the program for whom they do not have direct teaching relationships and so have less power with regard to these students. The power differential is obviously greater when dealing with students for whom the researcher is directly responsible but nevertheless remains, as faculty inevitably have an indirect relationship with all students in their program. Faculty's divided loyalty might result in the exertion of power in the recruitment process, precipitating situations that might not be in students' best interests (Bell & Nutt, 1999; Lemmens & Singer, 1998; Moreno, 1998).

Once recruited, students must be fully informed of the intents and procedures of the study and their rights to participate (or not) as they wish. The voluntariness of student consent might be jeopardized by their relationship with faculty as researcher, in which the power relationship continues to be evident. Reassuring students that they can withdraw at any time is moot if their decisions to participate in the first place are related to their dependency relationships with faculty.

The data collection process

Students have a right to privacy as they engage in learning (Dyregrov, 2004; Kavanaugh & Ayres, 1998; Orb et al., 2001). This privacy includes their perceptions and reactions to educator approaches, teaching strategies, and curriculum design. Faculty research might also be focused on issues that are personal and intimate, and involve issues that students might choose to keep private. Such interviews can invade a person's right to privacy and cause distress for the participant (Kavanaugh & Ayres, 1998). The participant's right to self-determination or autonomy can be compromised in situations in which data are collected covertly, under the influence of coercion, or in instances of deception (Burns & Grove, 2001). The inherent power differences between faculty and students can create a situation wherein students are asked to divulge information of a personal nature that could influence the learning situation for that student or whereby students are reluctant to refuse to answer specific questions.

Although unequal power is frequently the basis of coercion, there are also situations in which students are coerced with rewards, including marks, experiences, or opportunities (Adair, 2001; Ferrari & McGowan, 2002). Occasionally, students are invited to participate in studies in which the intent of the research is masked or deception is used, or find themselves in situations in which data are collected by observations of groups of students without their knowledge or consent. Burns and Grove (2001) suggested that such an invasion of privacy can result in anxiety, guilt, embarrassment, shame, or loss of dignity for participants. Hudson and Bruckman (2004) documented strongly negative participant response to perceived invasions of privacy and lack of informed consent to research conducted on 2,260 participants of "public" Internet chat rooms. This risk is greater in certain qualitative research methods, especially if faculty researchers

are collecting the data themselves through interviews, observations, or personal documents. Although this situation might have the greatest effect on the trust in the research relationship and, by extension, to the teaching relationship, it can also affect the outcome of the research. Social desirability bias might be evident in some situations in which students feel compelled or coerced to participate but protect their privacy by providing false or incomplete information to comply with the researcher's goals.

Dual agency of educator and researcher in the data collection process can also create role conflicts for faculty as researcher (Namei, O'Brien King, Byrne, & Proffitt, 1998), resulting in faculty interventions as educators. In research interviews, faculty as educator might engage in teaching, providing advice and/or support, making educational assessments unrelated to the research, or making referrals to other professionals. In the same interview, faculty as researcher might have the conflicting goal of wishing to gain as much relevant data as possible, seeking more depth into the experience than the student is comfortable or willing to provide. Encouraging or inviting students to divulge personal information can undermine the trust relationship on which the faculty-learning interaction is based and result in negative effects on future learning experiences (Horner, 1999; Kavanaugh & Ayres, 1998).

Participant withdrawal

Participant withdrawal from studies is based on the same issues as are evident in the consenting process. Coercion, either overt or subtle, is apparent in the process, especially once data collection has begun. Although most consent forms remind participants that they can withdraw at any time (Burns & Grove, 2001; CNA, 2002; Public Welfare Act, 2001; TCPS, 2003), most participants are aware of the time and effort involved in collecting data. Thus, they might be reluctant to withdraw, even when the research process is arduous, distressing, or inconvenient, again fearing an impact on the teaching relationship. Faculty as researchers might also experience conflicts when they, as educators, recognize the burden of the research process on participants as learners but have a commitment to the goals of the research.

Confidentiality and anonymity

Confidentiality of research data is based on the principle of respect for the dignity and autonomy of research participants (TCPS, 2003). Not all research studies require confidentiality of data; historical studies, artistic explorations, studies of public-domain resources, and life histories are examples of studies that identify participants and publicly acknowledge their contributions. In many research studies, however, participants have the right to confidentiality of the data that they provide (Public Welfare Act, 2001; TCPS, 2003). Anonymity is the most effective means of assuring that confidentiality (TCPS, 2003). Complete anonymity can be achieved if the researcher cannot link the data to any specific individual. In faculty research with students as participants, anonymity is possible in terms of protecting the identity of participants and keeping their data confidential from others; however, it is very difficult to maintain anonymity of participants from the researcher. Thus, when faculty involve their students in their research, they are unable to maintain confidentiality of data from those who have positions of power in relation with the students: themselves. When faculty involve their students as participants, this potential violation to confidentiality of data can place students at risk for compromise of the teaching-learning situation and contributes to their reluctance to participate in the studies.

Confidentiality of the data provided should involve the assurance that the researcher will not make the raw data available to others or allow the identity of the participant to be revealed by the data unless it is appropriate to do so (with the participant's consent). Confidentiality of the data can be assured by limiting access to the data to persons directly responsible for the research. Because qualitative researchers often illustrate developing themes or theories from the analysis with direct quotations from the data (and request permission to do so in the consent forms), the data might be made public. However, ensuring that any direct quotations will not compromise the anonymity of the participants maintains their

confidentiality. Faculty as researchers have direct access to student data, most often with the participant identified. Anonymity of participants from persons with power over them (their faculty) and confidentiality of their data might, thus, not be maintained.

Methodological issues

Ethical issues emerge from design decisions in research, but design can also be used to manage ethical issues. Faculty study their students using both quantitative and qualitative approaches; however, ethical issues might be more apparent in qualitative studies, in which the identity of participants is more difficult to conceal from the faculty as researcher. Faculty will also encounter difficulties when specific numbers of students are required or units of students experiencing certain teaching strategies or learning situations are needed in the study. As a researcher, faculty can use different methods to increase the acceptability of their studies to their students, themselves, and ethics review boards overseeing the appropriateness of research.

Many designs also incorporate focus groups, in which issues of confidentiality and anonymity relate not only to faculty but also to other students within the programs. The researcher cannot assure confidentiality of the content of focus group discussions, even though the issue of confidentiality has been addressed with members of the groups. As well, anonymity is lost to other members of the focus group, and, again, the potential for violations is inevitable. Although these methodological and ethical issues are significant, the need to advance the knowledge of the disciplines or the pedagogy of the disciplines is also a worthy goal. This tension between the goals of the researcher and the goals of the teacher will be constants when studying in this area and must be addressed through design.

Strategies to address ethical and methodological issues

Institutional ethical review

Institutional review of research proposals provides a key safety net for researchers such as faculty who are planning to involve members of a captive group as participants in their research: Both participants and researchers are protected by the review. Not only is institutional review necessary for all research involving human participants, it is a critical requirement for research that involves more than minimal risk for participants. Institutional review panels such as research ethics boards (REBs) in Canada and institutional review boards (IRBs) in the United States are duly constituted within institutions according to national standards (Public Welfare Act, 2001; TCPS, 2003) and charged with the responsibility of ensuring that the proposed research design protects the confidentiality of participants, incorporates principles of justice, and minimizes harm to participants.

These review panels are essential in studies in which faculty propose to involve students as participants. The potential for conflicts of interest is great and needs to be scrutinized thoroughly by unbiased reviewers. Protection of the public, especially dependent or captive public, is essential for maintaining public trust in the research process. For students, this review and approval is reassuring, in that researchers outside of the proposed research have students' best interests in mind and potential conflicts of interest have been identified, addressed, and resolved prior to the initiation of the study.

Use of participants from captive populations

Faculty who involve their own students in their research only because they are convenient should consider strategies to involve individuals other than their students (Horner, 1999; Moreno et al., 1999). The guiding question for researchers and their REBs should address whether the research goals can be achieved by involving participants who are not in dependent relationships with the researcher. If so, use

of the captive population, although convenient, might be unethical. Psychologists have struggled with this issue and have identified strategies to ensure that participant subject pools are managed ethically to ensure that participants engage in research voluntarily (Bowman & Waite, 2003; Sieber, 1999).

Faculty who conduct research on the pedagogy of their disciplines are committed by their research goals to seek participants from the captive student population. The nature of the research necessitates student participation. The same is true of evaluation research (program evaluation or curriculum development) that is dependent in large part on student participation (Henry & Wright, 2001). Faculty, however, can mitigate the negative impact by using specific strategies. Faculty as researchers should avoid recruiting students who are currently registered in courses that they are teaching and for whom they have evaluative or grading responsibilities (Moreno et al., 1999). In situations such as this, a research team involving other faculty researcher(s) can often create situations to protect the fiduciary relationship. Another faculty researcher can seek student participation, obtain consent, and conduct the data collection, especially if interviews or observations are used. Use of multiple researchers or researcher assistants can create situations whereby data can be made anonymous and dependent students protected. The researcher might also find that multisite research incorporating other researchers also meets the need to study populations who are not in a dependent relationship with the researcher.

In addition, research involving the use of student products of learning (assignments, projects, journals, reflective writing) can be carried out only with the specific consent of student, which should be obtained prior to the initiation of the project. It must be recognized that conducting research on these products with the knowledge and consent of the students might also change the character of the products. For example, student reflective journals are frequently seen as rich sources of data, particularly in terms of students' construction of knowledge. However, the degree of personal disclosure evident in these journals might be based on the student assumption of confidentiality of the contents and trust in the educator to maintain student privacy and autonomy. Use of these journals in research, even with post hoc student consent, can seriously undermine the trust inherent in the educator-student relationship. Because the same issues arise in other types of student products that indicate the outcomes of learning, faculty should approach studies relying on this type of data with caution.

Voluntary and informed consent

Obtaining consent from a person in a dependent, captive, or status relationship with the researcher can proceed more smoothly because of the relationship and the desire of the dependent participant to meet the expectations of the more powerful faculty member who is also functioning as researcher (Moreno, 1998). The ease with which the consent is obtained, however, might not reflect the turmoil the participant has experienced in deciding to agree to participate. To avoid placing students in this undesirable position, faculty as researcher might use strategies to place the student at arm's length from the researcher.

Use of intermediaries to obtain student consent to participate can reduce the effect of faculty power in the relationship. Although the Nuremberg Code states that the researcher has a personal duty and responsibility to ascertain the quality of the participant's consent, this assertion does not acknowledge the complexity of dual-agency situations (Horner, 1999; Levine, 1992). In physician-researcher situations of dual agency and possible conflict of interest, Levine has suggested that another agent, such as a consenting auditor or an advocate, might be employed. Similarly, faculty could consider the use of agents, such as research assistants, to approach students for their agreement to participate. Seeking a sample from a larger group of students also provides for anonymity in the recruiting process.

The same agents could reassure students who choose not to participate that their decisions will be kept confidential from faculty researchers (Moreno, 1998). Undoubtedly, faculty will encounter dilemmas when they are seeking units of participants, such as all members of a class sections, all members of

smaller work groups, or pairs of participants such as students and their field placement supervisors. They are often difficult to obtain.

The discipline of education continues to address these issues, particularly as teachers engage in self-reflective research methods such as autoethnography and action research; students in their classrooms are indirectly involved in the research as teachers reflect on their teaching practices and interactions with these students. In many instances, students have not formally consented to be in the study and do not need to be, as the focus of the study is the teacher's self-reflection on professional practice in the classroom. Nonetheless, the privacy of students needs to be protected in such self-reflective methods. The same is true of many studies of program evaluation and curriculum development in the disciplines (Henry & Wright, 2001).

For those studies in which students are essential participants and the focus of the study, faculty researcher and their research assistants (if involved) must observe student participants for signs of reluctance to continue their participation. The same agents will need to provide support for those students who choose not to participate or decide to withdraw from the study during the process. Means of allowing students to withdraw from the study without harm or loss of dignity must be devised and communicated to all students.

Discussion of risks and benefits of the study with participants prior to their participation is essential. Students need to know the degree of disclosure that is expected of them in the study (Lemmens & Singer, 1998) and any risks that are anticipated as a result of this disclosure. They need to be fully informed as to who will have access to the data and reassured that they can refuse to answer any questions that transgress their personal willingness to disclose (Burns & Grove, 2001; Kavanaugh & Ayres, 1998). Benefits of the study, both for the participant and for future students in the program, need to be explained in realistic terms. Although students might derive benefits from their participation in a research study, for example gaining a better understanding of the research process (Bowman & Waite, 2003), researchers should not justify coercive actions for student participation based on such an assumption. Nimmer and Handelsman (1992) demonstrated negative student reactions toward research and the discipline when students were coerced into participating. The purpose of the study and the demands that will be placed on the participants' time must be clearly evident at the time of consent. Student participants must be able to consent with full knowledge of the possible burden the study might place on them (Lemmens & Singer, 1998; Namei et al., 1998; Public Welfare Act, 2001; TCPS, 2003).

Obviously, penalties for not participating must be avoided (Burns & Grove, 2001; Levine, 1992; Nimmer & Handelsman, 1992; TCPS, 2003), but faculty should also avoid incentives for students to participate, as these might be viewed as undue inducement to participate (TCPS, 2003). These incentives could be in the form of special considerations, special experiences, or, in some cases, a percentage of the final grade as a bonus for participating. It is generally agreed that participants can be reimbursed for expenses, such as parking fees or travel, that they incur as a result of their participation in a study. The provision of beverages and meals is also generally acceptable if they reflect a natural part of the daily routine that would be affected by the research procedures. Generally, these provisions reflect attempts by researchers to address possible obstacles that might prohibit consent that otherwise would be willingly given (Gross & Fogg, 2001).

Data collection

In the event that the issues of the research are not specific to the captive student population and do not relate to pedagogy of the discipline, the captive students should not be used, even though they are convenient. Faculty should employ their own students as participants only when those students are essential to address the specific research question, as in issues of program evaluation or pedagogy. Issues

of power and trust are diffused if faculty employ nonstudents or students in other programs to address sensitive or personal issues that are unrelated to the pedagogy of the discipline (Horner, 1999).

When involved with data collection with students, faculty should consider whether their conduct of interviews, observations, or analysis of documents would affect student participation, hinder disclosure, or place students at undue risk (Moreno, 1998). If so, the employment of research assistants is essential. This strategy is necessary to ensure that data collected are unaffected by the power relationship between students and faculty. If necessary, data should be made anonymous prior to faculty analysis, thus maintaining student confidentiality. At times, student participants might also provide data to please their faculty interviewers, saying what they perceive faculty want to hear or modifying their responses to avoid embarrassment, shame, or anxiety in their teaching-learning relationships with faculty. Coercion to participate or disclose information beyond the student's comfort level and the desire to do so can negatively affect the trust relationship between student and educator. Use of research assistants, although costly, might be worthwhile to avoid these possibilities.

Use of research assistants also precludes the role conflict that faculty as researchers might experience when students disclose issues that faculty as educators might perceive as requiring intervention. If they cannot use these assistants, faculty researchers must set clear guidelines and make these guidelines explicit to student participants prior to the start of data collection. Without these guidelines, student participants might also lose trust in their faculty as educators if issues within faculty control are raised but not addressed by faculty as researcher (Horner, 1999). For sensitive topics that, of necessity, involve students for whom they are directly responsible, faculty should consider research methods that allow for student anonymity, including use of research assistants or a design incorporating questionnaires or anonymous submissions.

Confidentiality and anonymity

Although some research is conducted with the identity of the participants made public (with their consent), many studies require measures to ensure confidentiality of the data. Protection of participants' privacy and autonomy is essential in many studies to maintain trust in the research relationship and, by extension, trust in the teaching relationship. Morse and Richards (2002) emphasized that protection of participants is the primary obligation of qualitative researchers. This belief is a major underpinning of codes of research ethics (CNA, 2002; TCPS, 2003). In many instances, the maintenance of student anonymity might be necessary to protect their privacy and the confidentiality of the data they provide to faculty researchers.

In terms of confidentiality, particularly in qualitative research in which quotations from data might be used to support findings or the number of participants is limited, faculty must report their findings in such a way that the identity of participants is indiscernible (Morse & Richards, 2002) and that their contributions to the research are made anonymously. Demographic data must be reported carefully, perhaps using means or ranges rather than specific data that could identify participants. At times, identifying details from qualitative data might be replaced with generic descriptors in parentheses to prevent disclosure of participants' identity without changing the inherent substantive nature of the data. This alteration raises issues concerning the impact of omitting contextual data; however, commitment to participants to ensure confidentiality of their data is a priority. Morse and Richards (2002) cautioned that naming institutions or locations, reporting the contributions of single participants so their interviews could be reconstructed, or using quotations that reveal participants' roles or responsibilities are all ways in which their anonymity can be compromised. Protection of participants is an essential consideration of qualitative researchers and even more so for those researchers in a fiduciary relationship with their participants.

Summary and conclusion

Faculty who engage their own students as participants in their research encounter specific research issues that emerge from their fiduciary relationship with those students. The issue of dual agency in research is one that has been addressed from the perspectives of physician-patient, therapist-client, and teacher-student. Power inequities in all relationships place an onus on the more powerful individual to act in the best interests of the other. The research relationship is no different. Unfortunately, failure to address ethical issues in research projects can result in the impairment of the trust relationship in both the research relationship and the preexisting fiduciary relationship. Because research involving these vulnerable and dependent participants is essential for the development of disciplinary knowledge, researchers must address issues threatening the trust relationship. In all instances, these dependent participants must be protected by ethically and methodologically sound research. As such, faculty researchers using student participants must attain high standards of ethical actions in their studies. Student participants would expect nothing less of faculty researchers.

References

- Adair, J. G. (2001). Ethics of psychological research: New policies, continuing issues, new concerns. *Canadian Psychology, 42*(1), 25-37.
- Bell, L., & Nutt, L. (1999). Divided loyalties, divided expectations: Research ethics, professional and occupational responsibilities. In M. Mauthner, M. Birch, J. Jessop, & T. Miller (Eds.), *Ethics in qualitative research* (pp. 70-90). Thousand Oaks, CA: Sage.
- Bowman, L. L., & Waite, B. W. (2003). Volunteering in research: Student satisfaction and educational benefits. *Teaching of Psychology, 30*(2), 102-106.
- Burns, N., & Grove, S. K. (2001). *The practice of nursing research: Conduct, critique, & utilization* (4th ed.). Philadelphia: W. B. Saunders.
- Canadian Nurses Association. (2002). *Ethical research guidelines for registered nurses*. Ottawa: Author.
- Diamond, M. R., & Reidpath, D. D. (1992). Psychology ethics down under: A survey of student subject pools in Australia. *Ethics & Behavior, 2*(2), 101-108.
- Donelson, R., & Rogers, T. (2004). Negotiating a research protocol for studying school-based gay and lesbian issues. *Theory Into Practice, 43*(2), 128-135.
- Dyregrov, K. (2004). Bereaved parents' experiences of research participation. *Social Science & Medicine, 58*, 391-400.
- Ebbs, C. A. (1996). Qualitative research inquiry: Issues of power and ethics. *Education, 117*(2), 217-222.
- Edwards, M., & Chalmers, K. (2002). Double agency in clinical research. *Canadian Journal of Nursing Research, 34*(1), 131-142.
- Ferrari, J. R., & McGowan, S. (2002). Using exam bonus points as incentive for research participation. *Teaching of Psychology, 29*(1), 29-32.
- Gross, D., & Fogg, L. (2001). Clinical trials in the 21st century: The case for participant-centered research. *Research in Nursing & Health, 24*, 530-539.

- Harrington, K. F., Binkley, D., Reynolds, K. D., Duval, R. C., Copeland, J. R., Franklin, F., et al. (1997). Recruitment issues in school-based research: Lessons learned from the High 5 Alabama Project. *Journal of School Health, 67*(10), 415-421.
- Henry, R. B., & Wright, D. E. (2001). When do medical students become human subjects of research?: The case of program evaluation. *Academic Medicine, 76*(9), 871-875.
- Horner, J. S. (1999). Retreat from Nuremberg: Can we prevent unethical medical research? *Public Health, 113*, 205-210.
- Hudson, J. M., & Bruckman, A. (2004). "Go away": Participant objections to being studied and the ethics of chatroom research. *The Information Society, 20*, 127-139.
- Husu, J. (2004). A multifocal approach to study pedagogical ethics in school settings. *Scandinavian Journal of Educational Research, 48*(2), 123-140.
- Kavanaugh, K., & Ayres, L. (1998). "Not as bad as it could have been": Assessing and mitigating harm during research interviews on sensitive topics. *Research in Nursing & Health, 21*, 91-97.
- Lemmens, T., & Singer, P. (1998). Bioethics for clinicians: Conflicts of interest in research, education, and patient care. *Canadian Medical Association Journal, 159*(8), 960-965.
- Levine, R. J. (1992). Clinical trials and physicians as double agents. *Yale Journal of Biology and Medicine, 65*, 65-74.
- Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada (TCPS). (2003). *Tri-council policy statement: Ethical conduct for research involving humans*. Ottawa: Public Works and Government Services Canada.
- Miller, F. G., Rosenstein, D. L., & DeRenzo, E. G. (1998). Professional integrity in clinical research. *Journal of the American Medical Association, 280*(16), 1449-1454.
- Moreno, J. D. (1998). Convenient and captive populations. In J. P. Kahn, A. C. Mastroianni, & J. Sugarman (Eds.), *Beyond consent: Seeking justice in research* (pp. 111-130). Oxford, UK: Oxford University Press.
- Moreno, J., Caplan, A. L., & Wolpe, P. R. (1999). Updating protections for human subjects involved in research. *Journal of the American Medical Association, 280*(22), 1951-1958.
- Morse, J. M., & Richards, L. (2002). *Readme first for a user's guide to qualitative methods*. Thousand Oaks, CA: Sage.
- Namei, S. K., O'Brien King, M., Byrne, M., & Proffitt, C. (1998). *The ethics of role conflict in research*. *Journal of Neuroscience Nursing, 25*(5), 326-330.
- Nimmer, J. G., & Handelsman, M. M. (1992). Effects of subject pool policy on student attitudes toward psychology and psychological research. *Teaching of Psychology, 19*(3), 141-144.

Orb, A., Eisenhauer, L., & Wynaden, D. (2001). *Ethics in qualitative research*. *Journal of Nursing Scholarship*, 33(1), 93-96.

Public Welfare Act of 2001, 45 U.S.C. § 46 (Department of Health and Human Services 2004).

Schuklenk, U. (2000). Protecting the vulnerable: Testing times for clinical research ethics. *Social Sciences & Medicine*, 51, 969-977.

Sieber, J. E. (1999). What makes a subject pool (un)ethical? In G. Chastain & R. E. Landrum (Eds.), *Protecting human subjects: Departmental subject pools and Institutional Review Boards* (pp. 43-64). Washington, DC: American Psychological Association.