

Debate

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The student and the ovum: The lack of autonomy and informed consent in trading genes for tuition

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Abstract

Rising tuition costs have forced university students to become creative in finding ways to fund their education. Some female university students have decided that ova donation may be an acceptable alternative in which to pay for their tuition. This alternative presents itself because of the insufficient number of ova available for assisted reproduction and emerging stem cell technologies. Young female university students are encouraged by Internet sources and respectable electronic and print media to donate their ova in the cause of assisted reproduction for monetary compensation. While university students generally exhibit autonomy, the constraining influence of their financial predicament compromises the elements of informed consent (voluntariness, competence, capacity, understanding, and disclosure) as to their making an autonomous decision in regard to egg donation. Thus, any moral possibility of giving informed consent is negated. Informed consent can only occur through autonomy. A female university student in need of financial resources to pay for her education cannot make an autonomous choice to trade her genes for tuition. Donated ova are not only needed for assisted reproduction, but for stem cell technologies. While the long-term health of women who donate their ova is of concern (a potential risk of cancer after long term use of ovulation induction), of equal concern is the possibility of a growth in the trade of ova targeting third world and Eastern European women where the precedence for autonomy and informed consent is not well established.

Background

Tuition costs are rising dramatically in the United States [1]. Higher education costs, especially those of private and professional institutions, may exceed \$40,000 per annum in tuition, room, board, and books. Students are justifiably concerned as to how to raise the necessary funds for paying for such a university education.

Upon visiting a major university campus we were party to a conversation that arose among several students concerning methods of funding their education. One female stu-

dent suggested egg (ovum) donation to pay for her tuition. According to Internet sources she could easily receive \$5000 for a donation [2,3]. In fact, for the appropriate physical and mental/intellectual attributes and field of study, a female student may receive as much as \$30,000 for consenting to egg donation [4]. Even respectable publications such as *The New York Magazine* have been involved in recruiting egg donors [5]. This procedure could, of course, be proffered multiple times by the student to the appropriate agency for the appropriate remuneration. The commodification of the egg retrieval process

[4] has now successfully reached the awareness of young university women of lesser means.

Egg donation creates controversy. There are debates concerning the age of recipients, payments, offspring, and exploitation [6-9]. Our society may be in the initial stages of engaging the "slippery slope" of assisted reproduction. We are entering a time when egg donation seems to be gearing up as a commercial industry, a "manufacturing mode, cut off from its biological, personal, social, and ethical moorings" [9] and where such an industry's ethics at times are called into question [11].

Commerce and medical ethics will, at times, naturally clash:

"A commercial approach to health care tends to undermine altruism and social solidarity, whether in the provision of eggs and sperms for infertility treatment, or in the attitudes engendered by turning patients into customers and consumers, and health care organizations into quasi markets" [12].

Our initial thought when confronted with this bio-commercial option to affording tuition was, "How creative this young person must be and yet how desperate she must feel". The youth of a nation: free, independent, creative, capitalistic, and most assuredly, not autonomous. In a moral society respect for autonomous choices is ingrained. Respect for autonomy should not be trespassed upon. Female students concerned about tuition costs, who decide to submit to egg donation for remuneration to defray such costs, can neither make an autonomous choice nor give informed consent.

Debate **Autonomy**

Autonomy is derived from the Greek words **autos** (self) and **nomos** (law or rule). This term was originally a political term, but now extends to the personal level. Personal autonomy is "self rule that is free from both controlling influence by others and from limitations, such as inadequate understanding, that is present in meaningful choice" [13].

Therefore if you are autonomous you select a plan of action and proceed accordingly. However, if your individual autonomy is in any way hindered, lessened, or impaired, then (a) it must in some way be influenced or controlled by others, or (b) you are incapable of pursuing your plans or wishes. For instance, individuals living in a totalitarian state or those with a diminished mental capacity would exemplify impairment of autonomy.

There are two essential conditions that must be evident for meaningful autonomy to be present: (1) liberty (independence from controlling influence) and (2) agency (capacity for intentional action) [13].

Immanuel Kant argues that all persons have unconditional worth and have the capacity to determine their moral destiny. Kant feels dignity is an unconditional worth that everyone has by virtue of being a human; persons should be treated as ends in themselves [14]. John Stuart Mill provides additional support to Kant in his concern that society should allow people to develop according to their own views as long as that person's expression of freedom does not interfere with the freedom of expression of another person. He also instructed us that there are times when we may be obligated to change the views of others when such views are false or not well considered [15].

The principle of respect for autonomy can be viewed as a positive or a negative obligation:

"As a positive obligation this principle requires respectful treatment in disclosing information and fostering autonomous decision-making. As a negative obligation: Autonomous actions should not be subjected to controlling constraints by others" [13].

It is the interpretation of this principle in its light as a negative obligation in which intervention is necessary. University students certainly exhibit many traits of autonomous persons. They are capable of understanding, reasoning, self-governance, and independent in choosing. However, many of them struggle to meet the financial obligation of tuition, a most controlling constraint. Thus, female university students may not be able to act in an autonomous manner.

Autonomy should be respected, but it may not necessarily extend to persons who cannot act autonomously because of immaturity, coercion, exploitation, ignorance, and incapacitation [13,16].

Even though female university students are young adults (or nearly so) they still may; (1) not retain a level of maturity to be sufficiently autonomous, (2) they may be truly ignorant of the social and physical consequences of submitting to anesthesia, surgery, medications, and loss of contact with their biological offspring, and (3) they may be exploited for their lack of financial means and coveted physical attributes.

We defend the rights of individual autonomy, but students in need of money to pay their tuition are subjected to a controlling constraint and are therefore not auto-

mous in this particular instance and cannot render an autonomous decision as it relates to donating their ova.

Informed Consent

The concept of informed consent has matured over the years. The term informed consent surfaced in the 1950's and over the ensuing 20 years revolved around the obligation to disclose information to the patient. From the 1970's to the present the obligation of disclosure evolved into the necessity of the subject understanding and consenting to the treatment course on which they were about to embark.

The components of informed consent include voluntariness, competence, understanding, disclosure, and consent [13].

Voluntariness

Informed consent for the student is supposed to be an autonomous authorization for egg donation, but it must be more than just agreeing or complying with the procedure. This consent for egg donation must be an informed act that is voluntary:

"An informed consent in this sense occurs if, and only if, a patient or subject, with substantial understanding and in absence of substantial control by others, intentionally authorizes a professional to do something" [13].

Again, "substantial control by others", "controlling constraints of others", and "liberty (independence from controlling influence)" all rise up to confront the subject of egg donation by female students for remuneration to pay university tuition.

Therefore, acting voluntarily is the action of a will not controlled by another influence. Such an influence is usually construed to be that of another person or people. In regard to the maxim it could mean society, the university administration, the advertiser attempting to procure the egg donation, and even friends or family.

There are three categories of influence: coercion, persuasion, and manipulation [13]. Coercion is a threat intentionally delivered to control a person. Autonomy cannot exist in a coercive environment. Egg donation in the context that has been discussed is not coercive. Persuasion causes someone to believe in something by appealing to "reason". Appealing to reason must be distinguished from appealing to emotion. Emotion does not lead to the performance of an act based on intent. However, trying to persuade someone to trade their genes for tuition cannot be based on reason. Such persuasion invariably evokes an emotional response. When one is "in need" reason may not prevail. Manipulation is neither coercion nor persua-

sion, but any other means the manipulator can use that leads to the end the manipulator seeks. This manipulation can be informational (lying or withholding information) or emotional. Use of any of these categories of influence negates voluntariness.

Competence and Capacity

Does the female university student have the capacity to make an autonomous choice in this setting? Competence, a legal fitness to make a decision, is determined by the courts. Competence involves the ability to perform a task. The task in this case is to make the decision to donate ova and understand the attendant medical/physical and psychological/social risks (i.e., pain involved in the procedure, morbidity and mortality risks, short and long term effects of medications, and having offspring they will never know). It is entirely possible that the student will be competent. Capacity, although closely related to competence, involves the psychological, social, and physical wherewithal to make a competent decision. Capacity is a determination usually made by a health care provider [13].

Even though the female university student is competent to make choices generally, she may lack the capacity to make this choice because she is in need of financial resources and she has been presented with a "fix" for her dilemma. Some students may be psychologically unable to refuse. A very powerful enticement has been placed at her feet. If she really does have other options (e.g., bank loans) she may take them. If she has a dearth of alternatives and is passive in nature she may decide in favor of donating her ova. She can make that choice, but, in fact, is not competent to choose because her financial situation has stripped her of her capacity to make a competent choice.

Understanding

Understanding is another major facet of informed consent. There is not universal agreement about the definition of "understanding". It can be argued that to make a medical decision a person must have full understanding and full disclosure. The question may also arise as to whether any patient can comprehend and appreciate any information that is provided to them. This may be an overzealous view, however, a single fact, not comprehended or presented, may lead to a lack of understanding in regard to the decision at hand (consenting to egg retrieval). Childress and Beauchamp feel full disclosure may not be the proper standard:

"If we replace this ideal standard with a more acceptable account of understanding relevant information, we can thwart such skepticism. From the fact that actions are never fully informed, voluntary, or autonomous, it does

not follow that they are never adequately informed, voluntary or autonomous" [13].

Other authors agree that full disclosure is not necessary, but that patients need only "adequate" information. In other words, enough information to make a reasonable decision in regard to an option presented [16].

Recall studies demonstrate that patients do not necessarily remember what physicians tell them preoperatively as to the topics of morbidity, mortality, and pain [13]. Patients, at times, do not acquire, process, or retain the information related to risks presented to them preoperatively. This "depletes" the morality of informed consent before surgery. This is especially so when dealing with a decision concerning the reproductive health of females who only recently reached adulthood and now face a financial dilemma with a seemingly easy solution for its resolution.

Views of the problem of non-acceptance and false belief are very appropriate at this juncture [13]. Persons may comprehend information, but do not or cannot accept the information. For example, if a twenty year old female is told she has a 1% chance of hemorrhaging, a 1% chance of having a post operative infection, and a remote chance of death with an egg donation procedure; can she accept this? Can she understand the long-term risks of fertility drugs, including the risk of cancer [17-19]? This young woman may very well understand these risks, but can she actually accept the fact that she has a remote, yet possible chance of getting cancer or dying?

False beliefs, in addition to a person's inability to accept stated risks, may cause problems. No matter what is disclosed and how well she comprehends the procedure she may be accepting a false premise that this financial decision will "cure" her situation. This decision may only solve her financial problems temporarily. She may have to undergo this procedure multiple times and face its multiple risks to acquire the financial resources needed to finish school. Therefore, the "cure" may not be "therapeutic" and may be physically and psychologically damaging. In this situation the lack of acceptance and false beliefs may invalidate consent to egg donation.

Disclosure

From the physician's perspective informed consent has been the disclosure of risks to the patient in regard to the procedure at hand. The physician is required to provide information in a reasonably careful fashion. Physicians view this exercise as a necessity in reducing their liability. However, this act of disclosure should actually be about putting the patient in a position to make an autonomous decision.

"Professionals are generally obligated to disclose a core set of information, including (1) those facts or descriptions that patients or subjects usually consider material in deciding whether to refuse or consent to the proposed intervention or research, (2) information the professional believes to be material, (3) the professional's recommendation, and (4) the purpose of seeking consent, and (5) the nature and limits of consent as an act of authorization" [13].

There is little doubt in the minds of most people that a physician would perform the act of disclosure when speaking with a university student in regard to her donation of eggs and adhere to the above core set of information. However, physicians, patients, and the court system have struggled to determine the standard or norm that should determine appropriate disclosure. There are three standards by which to measure disclosure: the professional practice standard, the reasonable person standard, and the subjective standard [13].

The professional practice standard is determined by the customary practices that pertain to disclosure in a geographic area. In other words, whatever the local physicians do in regard to disclosure, i.e., type and amount of information, should be the regional practice disclosure ideal.

Since this is a "professional" standard only physicians can determine if a patient's right to proper disclosure of information has been violated. A "professional" standard intimates that physicians can set this standard and that such a standard is designed for medical judgments, but we speak here of the decision of a young female student to decide on whether she should go through with an egg donation for profit. Such a decision is non-medical, the standard of disclosure among physicians in a particular community cannot weigh in against the feelings and beliefs of this student. Therefore, this standard, which is used by almost half of the United States, may not be morally valid in those states as to proper disclosure for the act of donating ova.

The reasonable person standard is a second standard of disclosure and this standard is gaining wider acceptance. In this standard the information that is necessary to disclose should be that which is comprehended and understood by a reasonable person. Therefore, pertinent material for disclosure is that material that would be of importance to a reasonable person. So the focus shifts from the physician to the patient for determination of necessary information.

In regard to female students who wish to trade their ova for remuneration the question arises as to what is "mate-

rial information" to a female university student? Can these students benefit from any information that is disclosed to them or have they already made up their mind when they approach the physician? Has their financial situation made them deferentially accept the physician's recommendations without carefully weighing the risks and benefits? What is "material" for one person may not be so for another.

The "subjective standard" is the moral example of choice when it comes to disclosure. This standard caters to the specific needs of information that are required by an individual, as opposed to the ideal "reasonable person". The question is whether a standard should be designed that is "subjective", i.e., created for the individual. It would be a standard that is "a more preferable standard of disclosure because it alone acknowledges a person's specific informational needs" [13]. However, because the standard is subjective it is insufficient for society and unfair to physicians (the physicians cannot know the expected and required informational needs of the student) and is almost never used.

The subjective standard of disclosure fails because it will not be available to the student for her concerns of proper disclosure. The professional standard fails because it is by, for, and policed by physicians, and the reasonable standard fails because a standard for a "reasonable" university student cannot be gleaned from the collective masses. Therefore, the standards of disclosure universally fail when it comes to trading ova for tuition money.

Consent

This is the last element of informed consent [13]. This is the moment when the student signs an agreement and accepts the consequences and responsibilities. Her consent, therefore, is morally and ethically informed if she is competent and has the capacity to act, when disclosure occurs, when disclosure is comprehended, when she voluntarily acts on the procedure, and then consents to the procedure.

Conclusions

Informed consent can only occur through autonomy. A young woman who is a university student in need of financial resources to pay her tuition cannot be free of controlling influences by definition of her social and financial position, therefore, she cannot make the autonomous choice to trade her genes for tuition.

Furthermore, if she chooses to participate in donation of her ova under such conditions, she is not only acting out of a position of compromised autonomy, but because of the lack of autonomy she cannot give informed consent.

Her ability to give informed consent is further undermined because, although competent, she lacks capacity; although she receives disclosure, the prevailing standards of disclosure do not meet her needs; although she understands and comprehends her risks, she cannot accept them; although she volunteers for the procedure, it is not in the absence of constraints.

"Such sales nullify the reproductive paradigm, irretrievably replacing it with a manufacturing paradigm. This represents a change in kind, not just in degree, in the way we view our capacity to generate children and destroys our concept of reproduction as an essentially human activity" [10].

In essence, young women, essentially our daughters, and in some cases our wives, who trade their genes for tuition, effectively, are being exploited.

The medical community realizes there is a shortage of human ova for in vitro fertilization and that this shortfall threatens to create a burgeoning trade in human ova, especially with the anticipated need of large quantities of ova for stem-cell technologies [20]. The world community of physicians must pay close attention. There are safer alternatives to egg donation by healthy women and a major journal has called for caution regarding egg donor safety [21,22].

Today we are addressing the constraining influences affecting the autonomy of young university women who make commercial decisions regarding egg donation to defray the cost of education, but the situation could become more ominous. Tomorrow the poorer women of the third world or Eastern Europe, who could provide a cheaper market for ova where autonomy and informed consent are not as well established, may be targeted. The global commodification of egg donation is creating an ova-industrial complex that is at risk of being morally impoverished. Our continued vigilance is of paramount importance.

There is a global shortage of human ova for in vitro fertilization and stem cell technologies. Health care providers and administrators who are associated with assisted reproduction enterprises are aggressively recruiting egg donors through the electronic and print media. Young female university students without the financial resources to fund their education lack the autonomy to give informed consent for donation of their ova as a means of paying their tuition because of the constraining influence of their situation. We must remain vigilant in monitoring the ethical and moral approaches of the "industrial" aspect of assisted reproduction, not only toward young

university females, but also toward women of the third world and Eastern Europe.

Competing interests

None declared.

Author's contributions

ATP conceived of the paper and co-wrote the background, conclusion, and summary with TJP. TJP wrote the remaining portions of the paper. All authors read and approved the final manuscript.

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