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Przeszczepiać albo nie przeszczepiać? [To Transplant or Not to Transplant?]:
A Quantitative Approach to How Health Science Students in Poland
Approach Questions of Transplantation

It is often believed that healthcare professionals are responsible for educating the public about community health issues. The issue of transplantation has come to the fore in Poland, a nation which has seen large discrepancies between the number of transplants requested and the number of requests fulfilled. These discrepancies are possibly the result of a lack of scientific knowledge about transplantation as well as a fear of violating Catholic Church doctrine. Since physicians and healthcare professionals play such an important role correcting misconceptions about public health issues, I found it necessary to ascertain the beliefs of current Polish health science students on the topics of cell, organ, and tissue transplantation. I was particularly interested in the effect that an education in medicine has on adherence to church policies regarding transplantation and willingness to promote transplantation as doctors. Studies show that increases in time spent by Polish health science students in medical school enhance acceptance and knowledge of transplantation. This, in turn, suggests that educational outreach on the part of healthcare professionals can help increase the number of transplants performed.

An estimated 92% of the population of the Republic of Poland professes the Catholic faith, which makes Poland one of the most Catholic nations in Europe and the world.\textsuperscript{1} Historically, Poland has aligned itself with the Roman Catholic Church, and so its laws and regulations concerning research on and transplantation of cells, organs, and tissues follow the pro-life views of the Catholic Church. The Church denounces the practice of harvesting

\textsuperscript{1} Pew Research Center.
embryonic stem cells because it results in the destruction of a human embryo.\(^2\) However, the Catholic Church does support research on and use of adult stem cells because they can be safely removed from patients. The church believes adult stem cells to be more ethical and more scientifically promising to use than their embryonic counterparts.

According to Polish law, a human embryo is a “conceived child”; as such, an embryo cannot participate in research experiments under the Medical Profession Act of 1996. Further protections for earlier stages of life were enacted by the lower house of the Polish parliament (Sejm). In 2006, while the European Union was debating the allocation of funds to embryonic stem cell lines, the Polish parliament passed a resolution declaring embryonic stem cell research to be incompatible with Polish law. In support of its decision the parliament cited violations against the constitution and medical codes.\(^3\)

While Polish law rejects the use of embryonic stem cell lines, it embraces the Catholic Church’s interpretation of transplantation as an act of charity and heroism.\(^4\) According to the Polish Transplantation Act of 1 July 2005, unless an individual elects not to donate organs, his or her vital organs can be donated for life-sustaining purposes. This rule of alleged consent was used to increase the collection of vital organs and to develop a national transplantation program,\(^5\) though physicians typically ask family members of the deceased for a final say in the matter, leading to further decreases in transplantation.\(^6\) However, the rule does not extend to transplantation of bone marrow and other regenerative cells and tissues such as stem cells.\(^7\)

\(^2\) Speciale.
\(^3\) Witherspoon Council.
\(^4\) Baum and Musielak.
\(^5\) Ibid.
\(^6\) Baum and Musielak.
\(^7\) Nesterowicz, Baginska and Den Exter.
potentially leading to the assumption by families that these cells and tissues are already being collected.

Numerous national opinion polls have been conducted to gauge the beliefs of Poles concerning organ transplantation, and nearly all sources show a fairly high rate of acceptance for the majority of transplantation practices. Polls conducted in 2007 found nearly 80% of Poles were in favor of allowing their organs to be used for life-sustaining purposes after their death. These same polls showed that more than half of Poles were willing to donate their hearts to relatives, friends, foreigners, and coworkers. More recent polls from 2011 showed exceptionally high acceptance (96%) of organ transplantation and high acceptance (87%) of donating the organs of family members.

Despite near universal acceptance of organ transplantation in opinion polls, Poland lags behind many of its EU neighbors in the actual practice of organ transplantation. In a 2012 European Commission report, Poland had the twelfth largest percentage per population of kidney transplants from deceased donors and the twenty-fourth largest percentage per population of kidney transplants from living kidney donors among the twenty-seven member states of the European Union. In the same report, Poland ranked sixteenth in liver transplants, seventeenth in heart transplants, and sixteenth in lung transplants.

This inconsistency suggests that support for transplantation in Poland is actually lower than polls indicate when family members are given authority over the organs of the deceased. There are two main reasons for this discrepancy: a low level of health literacy coupled with

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8 Zagórski and Strzeszewski.
9 Roguska.
10 European Commission.
misconceptions of Church policy on the topic of transplantation. First, a low level of health literacy about transplantation prevents people from receiving the full benefit of modern medical advances both in terms of potential donors and recipients of beneficial organs. Second, because the Catholic Church accepts only certain types of transplantations, Poles with limited knowledge in the area may be unlikely to agree to any transplantations. In order to educate the community about healthcare issues, such as transplantation, healthcare professionals must improve communication with patients and aid in the transmission of readily understandable health and socio-ethical information.

To understand the attitudes and opinions of health science students in Poland, a cross-sectional survey-based research study was conducted in August 2011 among first- through sixth-year Polish health science students (representing fields of medicine, nursing, emergency medical services, public health, etc.) from the Medical University of Łódź. The results show several correlations between the progression of Polish health science students through medical education and their stances on transplantation. Several areas of the results are of particular interest here: the students’ attitudes pertaining to transplantation law, personal beliefs about and willingness to promote transplantation, the perceived effectiveness of several efforts in changing transplantation beliefs, and the role of the healthcare professional in community health. Several of the correlations in these areas are directly linked with additional education in the medical field.

The importance of religion and the profession of Catholic faith among Polish health science students do not greatly fluctuate as a function of educational level. Religious conviction

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11 Baum and Musielak.  
12 Williamson.  
13 Williamson.
remains more or less the same among all levels of education. This suggests that changing levels of religiosity does not play a significant role in the decision-making process of students questioned about transplantation. The constant factor of religion allows the findings to be interpreted in terms of increasing medical education among the students.

Students of all educational levels feel they have little knowledge of the Catholic Church’s teachings on transplantation. As such, they would be unable to offer accurate counsel to patients on questions of faith versus science. It is important that these future healthcare professionals educate themselves about the official teachings of the Church pertaining to transplantation in order to provide effective guidance to future patients, most of whom will be Catholic.

Increases in the years of medical education have a significant effect on student knowledge of transplantation law and donation programs in Poland. Students in their final years of medical education consider themselves much more knowledgeable about legal regulations concerning transplantation. They are also more likely than their younger colleagues to know that organ donation programs exist in their country. These increases are possibly the result of a longer duration of medical education. As medical education increases, so too does the likelihood that students have had exposure to medical law in their curriculum. In addition, these findings are significant because a better understanding of Polish medical law among students may lead to a diffusion of this knowledge to their future patients.

Several notable differences can be seen in the ethical beliefs of advanced Polish health science students compared to students just beginning their studies when the two groups are questioned about specific transplantation practices compared to students just beginning their studies. Advanced students were far more likely to approve of: kidney transplantation from living and deceased individuals; the use of adult and embryonic stem cells in organ regeneration;
the use of embryonic stem cells for their own healthcare; the destruction of embryos for lifesaving properties; and the use of ethically questionable research unsanctioned by the Catholic Church to save lives. Given the consistent religiosity of students, the findings are likely the result of increased medical education rather than the level of accordance with the teachings of the Catholic Church.

It is interesting to note, however, that the findings are inconsistent with the recorded levels of religious adherence of the students. Most notably, students in their final years declared acceptance of several transplantation practices that are incompatible with Church doctrine. Though 65% of these students declared themselves followers of the Catholic faith, fewer than 50% of them felt religious considerations should be given weight in the writing or amending of medical law. Nearly 80% approved of using embryonic stem cells in organ regeneration and almost 70% were in favor of destroying human embryos for life-sustaining purposes. These findings are important because they highlight the existence of factors aside from religion that contribute to transplantation beliefs. Students may consider themselves Catholic despite philosophical differences with the Church in the realm of medicine. Additionally, they may believe that religious doctrine should have a diminished role in public policy.

The difference between identifying as a Polish Catholic and embracing all the Church’s views warrants further discussion. Due to foreign invasions and occupations, Poles have faced threats to their identity and have therefore adopted several markers of Polishness in an attempt to preserve their heritage and national identity. Though one of the more obvious markers of Polishness is the use of Polish language, another important unifying marker was and still remains the Roman Catholic faith. However, the need to assert nationalistic pride and loyalty to the fatherland in the face of perceived threats has led many Poles to become Catholics in name only.
This mismatch between professed ideology and actual practice can be seen not only in the responses of students to potentially controversial scientific and medical practices, but also in the behavior of generations of Poles since the partitions, the series of three consecutive acquisitions of Polish-Lithuanian territory by Austria, Prussia, and Russia between 1772 and 1795, leading to the loss of Polish sovereignty for over 120 years. The Polish people have responded to social issues with a “Polish” attitude, allowing them to deal with inherent necessary evils and to relieve any sense of guilt for violating Church doctrine. In the case of abortion rights, for example, the peculiar “Polish” attitude toward the church may have its roots in communist times when an overall shortage of domestic goods and resources—including contraceptives—led many Polish women to undergo abortions (then legal and readily available) as their only means of birth control. However, with the toppling of communism, the rise of democracy, and resurgence of the political grip of the Catholic Church in public affairs, abortions became more restricted and stigmatized.

While a large majority of Polish health science students believe it is a doctor’s responsibility to educate the community about cell and organ transplantation, less than half of the students find that doctors actually assume this role. Even fewer believe that the general public in Poland participates enough in transplantation or that the public has the necessary education to make informed decisions about transplantation. Interestingly, when faced with the idea of low public knowledge and minimal public engagement by healthcare professionals of transplantation issues, students of all educational levels were in agreement regarding the potentially beneficial effects of a celebrity or media endorsement of transplantation in changing public opinion. Students rank celebrities and the media as two of the most effective sources of change in

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14 Encyclopædia Britannica Online.
15 Ghosh.
transplantation beliefs, second only to doctors. Polish health science students believe that media (social, news, television, etc.) and celebrity culture have the ability to mobilize Poles and to change their perceptions about transplantation for the better, thereby filling the void left by perceived low community activism among doctors.

In an effort to gain insight into this perceived lack of community education by healthcare professionals, I interviewed Dr. Elżbieta Hajoł, the owner of a rural health clinic outside of Kraków in southern Poland. Dr. Hajoł highlighted the importance of engaging youth, whom she considered the most impressionable, in order to increase the number of potential organ donors and recipients. She also noted the capacity of doctors, celebrities, and media to influence the public. Like the students, Dr. Hajoł believes that social programs are needed to educate the public about transplantation; however, she made it clear that her daily responsibilities are too time consuming for additional outreach work.\textsuperscript{16} It is possible that effective community activism and education on topics of medical importance are not given enough weight in Polish health science curricula or that the work lives of healthcare professionals are too hectic for additional community outreach programs.

Another pattern worth noting is the low regard that students have for teachers and politicians as effective agents of change. Students across all educational levels gave politicians the lowest approval scores. This makes politicians the least helpful means, according to students questioned, by which to effect change in attitudes toward transplantation among Poles. Teachers were ranked as either the second or third least likely source of potential change. The explanation for these beliefs can be found in the present political and social situation in Poland. The unstable and vitriolic world of modern Polish politics—created by mudslinging and bickering between

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\textsuperscript{16} Hajoł.
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opposing political factions (the conservative Law and Justice with their Catholic Bishop allies versus the secular Civic Platform)—can be seen as contributing to growing disinterest in politics among youth. Inflammatory rhetoric and name-calling between parties are commonplace. For example, Law and Justice party chief Jarosław Kaczyński recently referred to his Civic Platform opponents as an overflowing “cup of evil.” At the same time, significant issues affecting Poland (e.g., the economic downturn) are given second billing to far less important pursuits, such as conspiracy theories implicating Russia in the tragic downing of a Katyn-bound aircraft of Polish dignitaries in 2010\textsuperscript{17} or the quashing of gay rights as necessary to prevent the “downfall of civilization.”\textsuperscript{18} It should come as no surprise that this disconnect between politicians and the common good of the Polish people is fueling a negative public opinion of Polish politicians, a low voter turnout in national elections, and the belief that receiving objective information on a socially important topic (such as that of stem cells) is impossible.\textsuperscript{19} One possible reason why Polish teachers face low rankings in their potential for changing opinions towards transplantation has to do with the fact that their incomes lag behind those of other professionals in Poland. They are consequently not given the same levels of respect as higher paid individuals, such as doctors.

In conclusion, it is important to reiterate that an increase in medical education among Polish health science students has a positive effect on students’ knowledge of the legal aspects of transplantation, their willingness to promote varied forms of transplantation, and their acceptance of research on and use of adult and embryonic stem cells for organ regeneration. Findings also show how important it is that students educate themselves about the Catholic Church’s stance toward various aspects of transplantation so as to convey this information to the public. As future

\textsuperscript{17} \textit{Economist.}
\textsuperscript{18} \textit{Day.}
\textsuperscript{19} \textit{Economist.}
educators in their communities, students must learn not only to engage the public but to correct their own misconceptions about transplantation. This way they can properly diffuse knowledge obtained in their schooling so that the general public of Poland can benefit from current medical science.

Works Cited


http://www.economist.com/blogs/easternapproaches/2012/10/polish-politics

http://www.britannica.com/EBchecked/topic/466910/Partitions-of-Poland


http://www.ibtimes.com/will-catholic-poland-finally-legalize-abortion-796091

Hajoł, Elżbieta, interview with author, August 26, 2011.

http://books.google.com/books?id=A7UWqlavwNMC&printsec=frontcover


