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**A Study to Evaluate the Knowledge, Attitude, Beliefs, and Obstacles  
Concerning Organ Donation Myths Among Community Populations in  
Selected Areas of Chandigarh**

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**Abstract:**

*August 13 is organ donation day. Due to a lack of understanding, organ donation misconceptions and anxiety exist. This day encourages people to pledge to give organs after death and raises awareness of organ donation. In India, 500,000 die from organ shortages, 200,000 from liver disease, and 50,000 from heart disease. Only 5,000 of 150,000 kidney transplant candidates get one. Donating biological organs and tissue from a live or deceased individual to a living recipient in need of transplantation is called organ donation. Allo-transplantations are human-to-human transplants. Xeno transplantation involves implanting animal organs into humans. Quantitative and one-group pre-test-post-test methods were used. Stratified random sample chose 323 community populations from designated Chandigarh areas. Participants completed a structured questionnaire. Descriptive and inferential statistics were used. The survey found that most community populations had intermediate organ donation awareness and were unprepared. Enlightenment improved it.*

**Keywords: Attitude, Beliefs, Barriers, Myths, Organ Donation, Community Populations and Chandigarh.**

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**Introduction:**

Within a live creature, an organ is a group of specialised tissues that work together to carry out a certain task. Donation of an organ happens when a person, either alive or after death, gives permission for their organ to be surgically removed and implanted into another human being. Of the 79 human organs that have been discovered, the kidneys, heart, pancreas, intestines, lungs, bone marrow, epidermis, and cornea are the most often transplanted. A transplant is the surgical implantation of a donor organ or tissue

into a recipient in order to restore the recipient's normal function. This idea provided terminally sick patients fresh hope and a second chance at life in the 1950s, when several kidney transplants were successfully done. To prevent the commercial sale of human organs (1) and to provide a system for their removal, storage, and transplantation for therapeutic reasons, the Transplantation of Human Organs Act (THOA) was passed in 1994. One way to donate an organ is by:

- i) Close Relative Donor (mother, father, son, daughter, brother, sister, spouse)
- ii) Non-close Relative Donor (can donate out of affection or for other special reasons with the authorization committee's approval.
- iii) Deceased donor (brain stem death, e.g., motor vehicle accident victim, donor after cardiac arrest)

In India, there is a severe shortage of organs. Organ shortages cause the deaths of almost 5,000 Indians annually. Among the leading causes of death worldwide in 2018, unintentional deaths rated #6 on the WHO's list. Head injuries account for 11% of all road accident deaths in India, with 1.5 lakh people dying every year. The national organ donor deficit may be solved if only 5-10% of those killed in road accidents donated their organs. Organ transplantation is the gold standard treatment for illnesses of the organs that eventually lead to death. India's organ transplantation efforts are hampered by a shortage of donors. There is an urgent need to solve India's significant organ transplant shortage (2).

The paucity of organs may have its roots in a lack of information about the topic and negative views on organ donation. Organ donation might be impeded in India by a number of factors, including the country's population's lack of familiarity with the concept of brain death, its religious and superstitious views on reincarnation, its fear of misuse, its

concern for the recipients' health, and interpersonal problems. Losing a loved one is a devastating experience. Interrupting a mourning person with a request for donations or emotional gestures may make it hard for them to give. Many people's lives may be saved by organ transplantation; yet, the number of transplants can only increase so quickly due to a dearth of donors. There is a worldwide organ excess. Extra funds are required to save more people currently on the waiting list. The request environment, interpersonal skills, the dead individual's level of consent (NOK), the quality of care received, and the donor's own feelings about organ donation are all factors to think about. Advances in technology keep coming (3).

Modern medical technology is used to make diagnoses and provide treatments for patients. People are learning more about illnesses and their treatments, which has led to the development of innovative vaccinations and therapies that can extend a patient's life by five years<sup>1</sup>. Because of this change, people now live in constant tension and hurry. The failure of an organ is a direct result of chronic illnesses such as diabetes, cardiovascular disease, liver disease, high blood pressure, etc. As a species, we try to find ways around problems. One solution is to transplant inoperable organs. Kidney, liver, and heart transplants are all theoretically possible. Patients have a high probability of survival with this treatment, although organ donations are necessary. Nearly 50,000 people in India are now on transplant

waiting lists. Organ failure is a leading cause of death in the young population. Inadequate organ supply is a major issue in India and elsewhere. Donation of organs from the deceased is an option when living donors are unavailable (4, 5).

Three people are killed in traffic accidents per minute in India, and most of the victims are children and young adults. If an organ is given in time, it may benefit seven people. More work from the public and the government is needed to change this. Individuals have to deal with the many underlying factors. The health care team should include political and religious leaders as well as teachers. The kids of today are aware of and affected by current events. It's a good idea to teach kids to pay attention and be mindful since they have the power to change their own perspectives and those of their loved ones. Organ donation should be taught to all students in high school and college, as well as those in the fields of medicine and nursing. Awareness campaigns should start where it matters most: in classrooms. The government has pushed for organ donation, and medical professionals and non-profits have made great gains in this direction. Several awareness-raising activities took place on World Organ Donation Day (6). Protests were place in a wide variety of urban centres. Politicians and famous people urged voters to sign up. Young people from various walks of life contributed to the campaign's success. Many people take part in events and campaigns without officially signing up for them, so organisers must make special

accommodations for them. Rural inhabitants and rural health teams should make an effort for rural people since organ failure is now a big concern in both urban and rural locations, and because early knowledge may help overcome or mitigate the problem. Reducing mortality rates and the prevalence of organ donation and transplantation scams requires the elimination of exploitative practises. Antisocial persons will no longer be able to take advantage of organ donation and transplantation as more public awareness of their importance increases. Nothing illegal was done. People's beliefs and values towards organ donation will also shift as a result of this (7).

### **Research Methodology:**

#### **Research Approach:**

Here, a Mixed Research design is employed. The research methodology is a plan and procedure that ranges from generalised assumptions to specific data collection, analysis, and interpretation techniques. Therefore, it depends on the essence of the research problem being investigated.

#### **Study Design:**

Non-experimental Descriptive Survey is utilised in this instance. Non-experimental research is research that does not involve an independent variable. Instead, the researcher observes and analyses the context in which the phenomenon occurs to obtain information.

#### **Study Setting:**

The present study utilised a one-group, pre-experimental design with a pre-

test and a post-test. As is, the design seems appropriate for evaluating the impact and effectiveness of the organ donation education programme. Which is conducted among the young people of Chandigarh, Karnataka.

**Study Population:**

Population of the research study is the entire number of subjects in which the researcher is interested in conducting the study. Population includes both living and non-living objects and is not limited to humans. The total number of cases from which the researcher can generalise his or her findings is known as the research target population. Community populations (male and female) residing in Chandigarh have been chosen for this investigation.

**Sample Size:**

300 Community populations (male and female) residing in Chandigarh have been chosen for this research.

**Sampling Technique:**

The technique of Systematic Random Sampling is employed here. Sampling is the process of selecting a subset of a population with the same characteristics as the entire population so that study data can be analysed.

**Criteria for Sampling:**

Eligibility criteria for sample selection are a researcher-specified subset of the total population to be included in the research study. Inclusion criteria refer to the characteristics of the population that must meet specific criteria in order to be included in the study. Exclusion criteria for sample selection are characteristics that

a population may or may not have, depending on the situation.

**Variables:**

Variables are the qualities, properties, or characteristics that change or vary and are manipulated or measured in scientific research. This study primarily examines baseline variables, independent variables, and dependent variables. In quantitative research studies, concepts that can vary or take on multiple values when measured are referred to as variables. Variables can be any characteristics or qualities of a person or subject, individual characteristics or properties, conditions or situations, or objects.

**Background Variables:**

This was classified as demographic and professional variables of intensive care and emergency/casualty unit staff nurses. Age, gender, religion, marital status, and monthly income are demographic variables. Professional variables: educational attainment, current area of employment, number of years of clinical experience in an intensive care and emergency unit, and current occupational cadre (title).

**Independent Variable:**

An independent variable for the study was Education Module on Organ Donation.

**Dependent Variable:**

Level of Knowledge, Attitude and Practice of Community Populations on organ donation and on maintaining the viability of potential donors 'organs.

**Extraneous Variables:**

Extraneous variables that were identified through literature and the researcher's experience such as education, total years of professional experience, most experience ward / service area, influence of books, mass media, health care professionals.

**Ethical Consideration:**

Throughout the investigation, the investigator took ethical principles into account and adhered to them. The researcher took the following measures to safeguard the ethical rights of study participants.

**Data Collection:**

Self-administered questionnaire / interview methods.

**Data Analysis:**

Data analysis is the systematic organization and synthesis of research data and testing of null hypothesis using those data.

**Result and Discussion:****Description of Selected Personal Variables:**

The study's whole sample size was 323 young people from Chandigarh. The selected demographics are displayed in the tables and graphs below according to age, gender, religion, level of education, household income, geographic region, marital status, family composition, professional status, donor awareness, donor family history, donor family transplantation, and donor awareness sources. Table (a) displays the population

percentages of the community based on the demographic characteristics.

Organ donation with regard to myths of organ donation among community population

**Assess the Knowledge of Organ Donation:**

The table (b) and figure (a) show that 319 (98.8%) cases had average knowledge score on organ donation, 3 (0.9%) cases had good knowledge score on organ donation and 1 (0.3%) cases had poor knowledge score on organ donation.

**Assess the Attitude towards Organ Donation:**

The table (c) and figure (b) show that 236 (73.1%) cases had positive attitude score on organ donation, 87 (26.9%) cases had neutral attitude score on organ donation and no one had negative attitude score on organ donation.

**Assess the Belief towards Organ Donation:**

The table (d) and figure (c) show that 320 (99.1%) cases had good belief score on organ donation, 2 (0.6%) cases had excellent belief score on organ donation, 1 (0.3%) cases had average belief score on organ donation and no one had poor belief score on organ donation.

**Assess the Barrier in Organ Donation:**

The table (e) and Figure (d) show that 322 (99.7%) cases had no barrier score on organ donation and 1 (0.3%) cases had positive barrier score on organ donation.

**Discussion:**

Our study's primary objective was to assess public knowledge of and sentiment towards organ donation among a sample of

urban residents of Chandigarh. Some interesting results emerged from our data study. We can all agree that organ donation is desperately required, however there are still numerous misconceptions and negative attitudes around the topic (7-9). A poll was conducted to learn how people in the greater Chandigarh region felt about organ donation. Three hundred and twenty-three adults were selected using a simple random selection procedure for an observational cross-sectional study. Nearly all of the people who started the survey also completed it. Around eighty-four percent had some understanding of what "organ donation" entailed. Nobody mentioned that it's possible to give other organs except kidneys and eyes. Seventy-nine percent of respondents were neutral on the issue of organ donation for religious purposes. Even though 35.5 percent of the population would donate an organ if they had to, just 11.8 percent were willing to sign a card addressing organ donation after death. Forty-five percent of young people (10-14) polled said they would be willing to donate an organ in exchange for financial compensation. Our poll found that reservations about organ donation were most often caused by apprehension (63.4%), followed by concerns about offending loved ones (36.6%). Four in ten people are happy with their level of knowledge, and nearly as many (43.6%) are happy with their level of attitude. Using multivariate logistic regression, we found that age, caste, and education were significant predictors of having positive knowledge and attitude towards organ

donation. The likelihood of wanting to donate an organ is significantly correlated with how well one understands the process (OR 13.5, 95%CI 5.33–34.9). Massive awareness efforts to support organ donation activities and the concept that organ donation may make many individuals happy should be spread on both the individual and social levels (15-18).

### Figures and Tables

#### Figures:

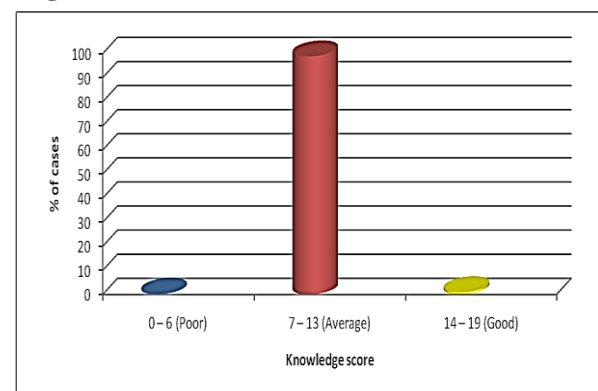


Figure (a) knowledge score on organ donation

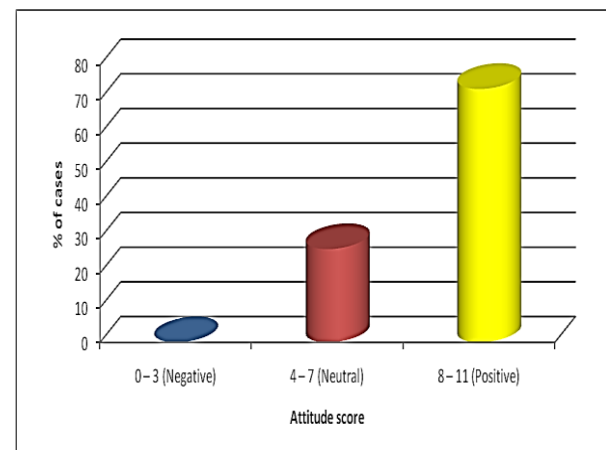


Figure (b) Attitude score on organ donation

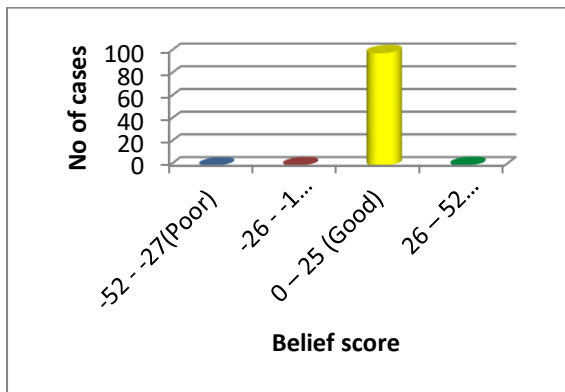


Figure (c) Belief score on organ donation

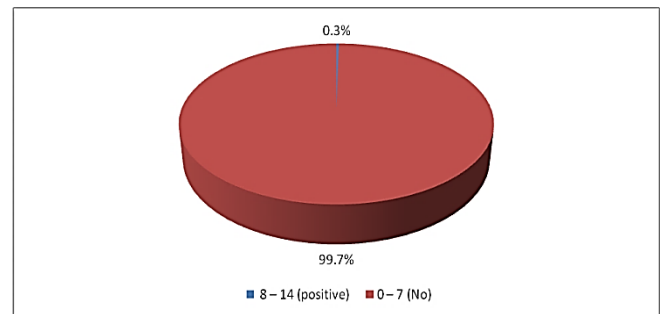


Figure (d) Barrier score on organ donation

**Tables:**

Table (a) Socio-demographic data of community population

	Parameters	No of cases	Percentage (n=323)
Age (Yrs.)	20 – 29	106	32.8
	30 – 39	109	33.7
	40 – 49	104	32.2
	50 – 59	4	1.2
Gender	Male	156	48.3
	Female	167	51.7
Religion	Hindu	157	48.6
	Muslim	34	10.5
	Sikh	106	32.8
	Christian	26	8.0
Type of family	Joint	28	8.7
	Nuclear	295	91.3
Educational qualification	Profession or Honours	43	13.3
	Graduate	58	18.0
	Intermediate or diploma	94	29.1
	High school	128	39.6
Monthly family income (Rs)	92,191-184,370	14	4.3
	68967-92185	182	56.3
	46095-68961	126	39.0
	27654-46089	1	.3
Occupation	Professionals	34	10.5
	Technicians and Associate Professionals	219	67.8
	Clerks	25	7.7
	Skilled Workers and shop & Market sales workers	45	13.9
Heard the term organ donation	Yes	323	100
	No	0	0
If yes, Source of information	Television	321	99.4
	Health professional	2	.6

Table (b) Assess the knowledge of organ donation regarding organ donation misconceptions among the study group's community population.

Knowledge score	No of cases	Percentage
0 – 6 (Poor)	1	.3
7 – 13 (Average)	319	98.8
14 – 19 (Good)	3	0.9
Total	323	100.0

Table (c) Assess the attitude of the study group's community population towards organ donation in relation to organ donation misconceptions.

Attitude score	No of cases	Percentage
0 – 3 (Negative)	0	0
4 – 7 (Neutral)	87	26.9
8 – 11 (Positive)	236	73.1
Total	323	100.0

Table (d) Assess the beliefs regarding organ donation in relation to organ donation fallacies among the study group's community population.

Belief score	No of cases	Percentage
-52 - -27 (Poor)	0	0
-26 - -1 (Average)	1	0.3
0 – 25 (Good)	320	99.1
26 – 52 (Excellent)	2	0.6
Total	323	100.0

Positive belief=from SN (42-50)

Negative belief= from SN (51-57)

Behavioural belief= from SN (58-62)

Subjective belief= from SN (63-67)

Table (e) Assess the barrier in organ donation in relation to organ donation misconceptions among the study group's community population.

Barrier	No of cases	Percentage
8 – 14 (positive)	1	0.3
0 – 7 (No)	322	99.7
Total	323	100.0

### Conclusion:

There should be many events held in the community to educate people about organ donation and get their support. The stigma associated with organ donation will be reduced as a result. People should be encouraged to register their intent to donate organs after death with their immediate family and other close relatives. Donating an organ might save a life and provide joy to many others, therefore they should know that doing so is the finest present they could offer. A small number of non-governmental organisations (NGOs) in certain Indian states and cities focus on organ donation. When compared to other industrialised nations, the United States lags considerably behind in terms of national-level activities (19-22). Acceptance of organ donation must first be increased on a regional level before it can be implemented on a national scale. There are many misconceptions, fallacies, and outright falsehoods surrounding organ donation and transplantation. These myths are harmful since organ donation is a social phenomenon that requires



widespread acceptance and participation to be successful. As a result, researchers set out to examine people living in metropolitan Chandigarh. The participants' knowledge and attitudes about organ donation, as well as the variables that influenced these attributes, were examined. Those in charge of the initiative may benefit from this data as they formulate a strategy to increase organ donations (23-27).

#### References:

1. Saleem T, Ishaque S, Habib N, Hussain SS, Jawed A, Khan AA et al.; Knowledge, attitudes and practices survey on organ donation among a selected adult population of Pakistan. *BMC Med Ethics*, 2009; 10: 5.
2. Mocan N, Tekin E. (2010) The determinants of the willingness to be an organ donor. Working Paper 11316.
3. Khan N, Masood Z, Tufail N, Shoukat H, Ashraf KTA, Ehsan S et al.; Knowledge and attitude of people towards organ donation. *JUMDC*, 2011; 2(2): 15-21.
4. Dudala SR, Reddy KAK, Prabhu GR; Prasad's socio-economic status classification- An update for 2014. *Int J Res Health Sci.*, 2014; 2(3): 875-878.
5. Riyanti S, Hatta M, Norhafizah S, Balkish MN, Siti ZM, HamizatulAkmal AH et al.; Organ donation by sociodemographic characteristics in Malaysia. *Asian Social Science*, 2014; 10(4): 262-272.
6. Annadurai K, Mani K, Ramasamy J; A study on knowledge, attitude and practices about organ donation among college students in Chennai, Tamil Nadu -2012. *Prog Health Sci.*, 2013; 3(2): 59-65.
7. Mishra PH, Vij A, Sarma RK; A knowledge, attitude and practice study of organ donation and its problems in the Metropolitan City of Delhi. *Journal of the Academy of Hospital Administration*. 16(1): 2004-01-2004-06.
8. Ahlawat R, Kumar V, Gupta AK, Sharma RK, Minz M, Jha V; Attitude and knowledge of healthcare workers in critical areas towards deceased organ donation in a public sector hospital in India. *Natl Med J India*, 2013; 26(6): 322-326.
9. Sucharitha ST, Siriki R, Dugyala RR, Mullai, Priyadarshini, Kaavya et al.; Organ Donation: Awareness, attitudes and beliefs among undergraduate medical students in South India. *National Journal of Research in Community Medicine*. 2013; 2(2): 83-88.
10. Morgan, S. E. and Miller, J. K. (2002). Communicating about gifts of life: The effect of knowledge, attitudes and altruism on behaviour and behavioural intentions regarding organ donation. *Journal of Applied Communication Research*. 30(2): 163-178.
11. Morgan, S. E., Stephenson, M. T., Harrison, T. R., Afifi, W. A. and Long, S. D. (2008). Facts versus 'Feelings' How Rational Is the decision to become an Organ Donor? *Journal of Health Psychology*. 13(5): 644-658.

12. Murakami, M., Fukuma, S., Ikezoe, M., Izawa, S., Watanabe, H., Yamaguchi, H., Kitazawa, A., Natsukawa, S. and Fukuhara, S. (2020). Knowledge does not correlate with behaviour towards deceased organ donation: A cross-sectional study in Japan. *Annals of Transplantation*.
13. Pouraghaei, M., Tagaizadieh, M., Tagizadieh, A., Moharamzadeh, S. E. and Nia, K. S. (2015). Knowledge and attitude regarding organ donation among relatives of patients referred to the emergency department. *Emergency*. 3(1): 33-39.
14. Ran, J., Elliott, D. and Hyde, C. (2004). The influence of sociocultural factors on Organ Donation and Transplantation in Korea: Findings from key informant interviews. *Journal of Transcultural Nursing*. 15(2): 147-154.
15. Robson, N. Z. M. H., Razack, A. H. and Dublin, N. (2010). Organ Transplants: ethical, social and religious issues in a multi-cultural society. *Asia Pacific Journal of Public Health*. 22(3):1-8.
16. Wakefield, C. E., Reid, J. and Homewood, J. (2011). Religious and Ethnic influences on willingness to donate organs and donor behaviour: An Australian Perspective. *National Library of Medicine. Pubmed.gov*. 21(2):161-168.
17. Weiss, J., Coslovsky, M., Keel, I., Franz, F. and Juni, P. (2014). Organ Donation in Switzerland- an Analysis of Factors Associated with Consent rate. *PLOS*. 9(6):1-7.
18. Westphal, G. A., Robinson, C. C., Biasi, A., Machado, F. R., Rosa, R. G., Teixeira, J. D. A., Franke, C. A., et al., (2019). DONORS (Donation Network to Optimize Organ Recovery Study): Study protocol to evaluate the implementation of an evidence based checklist for brain-dead potential organ donor management in intensive care units, a cluster randomized trial. *BMJ Open*. 9: e028570. 1-10.
19. Adithyan, G. S., Mariappan, M., & Nayana, K. B. (2017). A study on knowledge and attitude about organ donation among medical students in Kerala. *Indian Journal of Transplantation*, 11(3), 133-137.
20. Bekele, M., Jote, W., Workneh, T., & Worku, B. (2021). Knowledge and Attitudes about Organ Donation among Patient Companion at a Tertiary Hospital in Ethiopia. *Ethiopian Journal of Health Sciences*, 31(1).
21. Ghaffari M, Latifi M, Najafizadeh K, Rakhshanderou S, Courtney R, Ramezankhani A. Effects of Interventions on Organ Donation Among Adults: A systematic review from 2000-2016. *Transplantation*. 2017 Aug 1; 101: S36.
22. Poreddi V, Katyayani BV, Gandhi S, Thimmaiah R, Badamath S. Attitudes, knowledge, and willingness to donate organs among Indian nursing students. *Saudi Journal of kidney diseases and*

- transplantation. 2016 Nov 1; 27 (6):1129.
23. Charulatha, N. (2019). *A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge about Organ Donation among College Students at Selected Arts and Science College in Chennai* (Doctoral dissertation, College of Nursing, Madras Medical College, Chennai).
24. Cornwall, J., Schafer, C., Lal, N., D'Costa, R., & Nada-Raja, S. (2015). New Zealand university students' knowledge and attitudes to organ and tissue donation. *The New Zealand Medical Journal (Online)*, 128(1418), 70.
25. Mathiharan K, Patnaik AK, editors. 23rd ed. Gurgaon, Haryana: LexisNexis; 2009. Brain-stem death and transplantation of human organs act. In: Modi's Medical Jurisprudence and Toxicology; pp. 249–62.
26. Gain P, Jullienne R, He Z, Aldossary M, Acquart S, Cognasse F, et al. Global survey of corneal transplantation and eye banking. *JAMA Ophthalmol.* 2016; 134:167–73.
27. Navin S, Shroff S, Niranjana S. Deceased Organ Donation in India. [Last accessed on 2017 Aug 30].