Online Eye Donation Management System

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***Abstract*- The Online Eye Donation Management System is developed by keeping in mind that it should be more beneficial for hospitals, clinics and other health centers to govern the donor registration and user maintenance. It is an online web-based system which can only be insinuate in all over India. The people can recoup information related to Eye donations with the help of this system. People who intrigued can register themselves through this system. The application will be handled by the administrator and each donor will get the feedback about their application stature. Furthermore, only the authorized user's or the valid user's account will be maintained by the administrator. The donor record will be controlled by four main users such as admin, doctor, application manager and official authorities. Only admin has the rights and privileges to print the Eye list report and total donation report according to district from this system. An analysis has been done based on the traditional manual system and all the problems statements and requirements have been analyzed. Moreover, OODMS is three tier architecture system which involves end-user tier, business tier and database management tier. The interfaces for OODMS have been designed according to the requirement and needs of the current market Rather than that, this system also has been tested and evaluated in real life. This Online Eye Donation Management System will help to improve the performance of current situation and overcome the problems that arise nowadays.**

I.INTRODUCTION

Eye donation is yet to achieve propulsion in India. The knowledge and attitude of a society toward Eye transplantation is far from satisfactory even among the educated sections of the society. The main concerns causing Eye scarcity in the country are people have lack of consciousness and appropriate knowledge among them, mythological beliefs and misconception exploiting Eye donation just because of some religious and devout barriers. Hence, conveying correct knowledge and awareness about the issue to the public is quite essential for the success of Eye donation events in India. The health professionals, especially doctors, do have a major role in spreading correct knowledge and eradicating the barriers regarding Eye donation among the public since they are the first individuals to create a relationship with a potential donor's family. However, the ground reality in India is that the identification of brain death and requesting consent from the next to the kin is often given less priority by the doctors and hospital staffs. This change in attitude is partially because of the over burden they have and more due to the improper knowledge and attitude towards this issue.

Initially, it was thought that socio cultural and religious issues and lack of knowledge on the issue are the major determinants that restrict Eye donation. At present, it is apparent that there are many other factors such as lack of institutional mechanisms, Eyeizational support, and legal and ethical issues. The medical students and doctors with correct vision and knowledge regarding the recent developments in the domain of Eye donation can be the champions in this cause and can establish a powerful Eye donation event in the country by hand-holding other stakeholders.

Medical professionals' knowledge, attitudes, and practices are vital in promoting an atmosphere that positively impacts Eye donation and procurement rate. Therefore, it is obligatory to understand and assess the perception, perspective, and execution about Eye donation among the future people – the medical scholars – for the forthcoming success of the Eye donation events. However, there are very rare studies conducted among medical students in India, in this regard. In most of the studies directed among medical students in India, it was found that there exist gaps in the level of knowledge and their attitude toward Eye donation.

Eye donation is steadily catching up in the Indian states such as Tamil Nadu, Telangana, Andhra Pradesh, and Kerala. On the bounds of Tamil Nadu Government, Kerala also launched its corpse Eye donation program, the Kerala Network for Eye Sharing – popularly called as Mritasanjeevani, a Kerala Government initiative started on 12 August, 2012, for Kerala's Reduce Donor Eye Transplantation Event. Under the program, Kerala has achieved a lot in improving its cadaveric Eye donation rate through years.

I.I Objective

The aim of this study was to describe a refined process evaluation model adapted for Web -based settings and used to assess the implementation of a Web-based intervention aimed to increase Eye donation among Indians.

I.II Scope

This system is enhancement of the manual and web based Eye Donation Management System. The current system has features of giving information and donor's registration. The additional feature of proposed system is to generate the statistic graph about the donors according to the district and Eyes. The specific user's for this system are-

- Public
- Administrators
- Doctors
- Medical Assistant
- Management Staff

II. DESIGN AND IMPLEMENTATION

In the proposed system, To overcome the issue of wasting the Eyes the donor's identification will be taken in a multi variant approach. Donor's portrait of the image and a distinctive identification number is unique way of recognition. Once the person is met with an accident or stuck in any tragedy, the donor's face will be identified by the neighboring hospitals and the information about the user will be fetched easily. The retrieved information will be matched to identify whether the person is a donor or not. Next level is an authentication number which will be provided during registration of the user.

II.I User Module

II.I.I Login

This module is the major initial and headmost module of the project for the motive of authentication. Hospital Management creates a individual login for all donors. Login modules comprise basic attributes like username and password.

II.I.II Register

This is the second module after secure login of the user of the hospital management. Registration of donor or user is made in this module by the user of the hospital management staff in a central archive. The Details of registration includes the basic information, Guardian Information and Eye information Basic information of the donor to be registered is Name, Age, Date of birth and Blood group. Guardian Information of the donor is the Name and contact details of the guardian of the particular donor to whom the hospital management passes the information if the donor is exposed to death. Eye information of the donor should contain the Eye name which the donor wishes to donate. These details are registered in this module by the user of the hospital after secure login.

II.II Admin Module

This is the main module in which the administrator of the system can only login and view all the activities and transaction which are occurred in the system. The admin can view all the users and also find the user history and search Eye based and location based searches.

II.III Use Case Diagram

III. SYSTEM FEATURES

III.I Web Based Application

The current web based application in India for Eye Donation is not available according to the user's necessity as they are located on web which are easy to use as they can be retrieved in the case of emergency or any trauma Situation. The Mobility provided By Android based system which is accessible on mobile through Application are available on the go.

III.II Secured System

The current system is using the encryption algorithm for making the data confidential and available to the authorized person only. The AES algorithm is being used and a verification link is sent to the user's email after successful registration of a user.

III.III Trained Dataset

Dataset Training i.e., data storage, manipulation, service etc., provides a great supporting model for the Application. The filtered dataset in which is consistently structured helps end user to acquire this information and make the useful content from it. The major stipulation and data are D.O.B of the donor as well as receiver, blood group, day of last Eye donated, contact number, address with the proper city and state, email id. It provides the paradigm according hospital, Eye bank wise advance search for the list and rejuvenation of data.

III.IV Location Accuracy

This web based system includes the list of Eye banks with individual attribute in nearest city, which is not that much feasible in comparison to direct access of mobile application as that of surfing the internet on personal system. Using G.P.S location tracker of the donor towards the Eye donation application will give the location and way for nearest Eye bank system.

III.V Alert System

In case of emergency were the availability of Eye is not known and the time is the major concern for user as they cannot manually search for required Eye from each hospital and Eye banks. So the Application provides an alert button which as soon as is clicked the information according to the best search attribute id displayed to the user profile with the nearest hospital and Eye bank with its route to the destination.

IV. RESULTS

IV.I Review Statistics

A total of 20 studies assessing arbitrations among Health Professionals in clinical settings targeted at changing professional processes regarding the process of donation or expanding donation rates were analyzed. All the studies include used educational, bureaucratic or a fusion of both types of arbitrations to encourage professional practices regarding the donation process. These took the form of in -service meetings, webinars, seminars, conferences, print data, examples provided of conditions associated with the Eye donation process and identification of donation mechanism or information on how to approach a potential donor.

IV.II Study Quality Assessment

The 20 studies were assessed regarding population and the intervention assessment tool. In general, study quality was low. No study used a randomized population or justified their sample size. Only five studies used a control group. Allotment concealment of the arbitration was neither consistent nor mentioned for all the studies combined, and 19 of the 20 studies didn't use a theory-based arbitration. Where relevant, the validity and accuracy of the assessment tools were not cited. Among the studies with a control group, there was no aim-to-treat analysis.

V. DISCUSSION

This precise review outline the studies assessing educational and/or official interventions aimed at Health Professionals to alter professional practices regarding the donation process or expanded donation rates in clinical settings. A total of 20 studies were identified, among which only ten had a differentiation group. No study belonged to a theoretical framework, either for the improvement of the arbitrations or their assessment. The action change approach most often used involved of giving guidance on the donation procedure, including main criteria and the role of Health Professionals (how to approach family persons, to start discussion or how to confront with families' responses).

Based on our review, the selected arbitrations aimed at altering Health Professional practices regarding donation were maintained, for the most part, more

than a decade ago. Latest alterations in donation highlight the introduction of Eye Procurement Eyeization agents and the regulation providing donation after death (such as presumed approval). If Eye donation rates expanded following the introduction of Eye Procurement Eyeizations in clinical settings or following a change in rules, Health Professionals still have to inform procurement management of any probable donors, leaving place for more investigation and interventions to help Health Professionals in the donation process.

VI. CONCLUSION

In this research paper, we represented Eye donation applications in a precised way and it is published through internet to all over hospitals. It is mainly used in case of any accident. In future this application can be implemented for our medical related application "Multi Perspective Eye Donor Identification System" will reduces death rate since we are getting details of Eye donor in time. Therefore, interventions targeted at remodeling the donation process or rising donation rates should be based on sound theoretical structures and would profit from more rigorous calculation methods to provide good knowledge transcription and appropriate Eyeizational decisions to improve professional services.

REFERENCES

[1] Donate Life America: National donor description report card.[http://donatelife.net/2013-national-donor-description-report-card-released/]
[2] Abraham Cowley, Michie S: A glossary of behavior change procedures used in arbitrations. Health Psychology. 2008, 27: 379-387.
[3] Li AH, Rosenblum, Nevis IFC, Garg AX: juvenile classroom study on education and attitudes about degraded Eye donation: a systematic review. Pediatr uproot.
[4] Reports and consensus documents.National transplant Eyeization (Ed.), 2000.
[5] Professional characteristics of the transplant coordinator. - NCBITransplantation Proceedings, 29, pp. 1607-1613, Elsevier Science Inc., 1997.
[6] CL beasly, CL Capossela, LE Brigham,S Gunderson,P Weber,SL Gortmaker: The effect of extensive, hospital-focused arbitration to raise Eye donation. J Transpl Coordinator. 1999, 7: 6-13.
[7] Grimshaw JM, Eccles MP, Walker AE, Thomas RE: Changing physicians' behavior: what works and thoughts on Eye donation. J Contin Educ Health Professor. 2003,10.1002/ chp.1340220409.
[8] Shafer TJ, Kappel DF, Heinrichs DF: Strategies for success among OPOs: a study of three Eye procurement Eyeizations. J Transpl Coord. 1997, 7: 22-31