Virtual P Care App

Virtual Palliative Care App

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Abstract:At present,palliative care uses file system instead of data base system.In this scenario,an application with palliative services like chat interface,utilities and other services are carried out.In this survey,services of palliative care services are improved using this application.

I. INTRODUCTION

In every year, lot of patients loose their mental stability as well as confidence due to the lack of hand to hand relief ,they usually get bored and demotivated.In this scenario, palliative care has a great importance by moulding them to better ones , by providing better services.They are responsible for many of the day-to-day tasks, such as giving medications, providing transportation, assisting with daily activities, offering emotional support, helping with finances, and talking with doctors.The main goal of this system is to help people live more comfortably and to provide best possible quality life to patients.This system can assist both client and staff members simultaneously for palliative services

II. THEORY

A.Chat

Since waiting time in the health care was always an issue, therefore, with the chat interface, patients do not have to spend a long time waiting in the health care for small tasks.It may happen that a person lives in a remote area where he or she has to travel a long way to get a health sevice.Patients can simply talk to a concerned person through this feature. And also they can check the availability of the doctor, schedule appoinments, collect medicine details etc.

B.Services

Top notch customer service by fulfilling customer needs by providing services like waterbed,ambulance,wheelchair,oxygen cylinder etc. These services reduce the financial burden of needed ones, get right equipments and gain use of latest technology.

C.Payment

Payment includes donations.it is much faster than traditional methods .People from any corner of the world can donate necessary funds to the palliative care.it focus on the instant payments, better customer services, security and so on.

D.Med Bank

Medicine helps to prevent, halt or cure disease. Access to affordable, quality-assured essential medicine is crucial to reducing the financial burden of care, preventing greater pain and suffering , shortening the duration of illness and averting needless disabilities and deaths world wide. Medicine donation provide benefit like tax deduction. Therefore, it will be helpful to the patients who are financially backward.

E.Activities

Physiotherapy helps to restore movement and function when someone is affected by injury, illness or disability. It can also help to reduce your risk of injury or illness in the future. It takes a holistic approach that involves the patient directly in their own care Exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness.

III.RELATED WORK

Here are some papers based on the features used in palliative care system.

Paper [1],uses agent based architecture to increase the workflow system capacity which supports interprofessional and patient centered palliative care delivery.Itgives the concept of palliative care and says how agents assist the needs of patient and family . This is an architecture where agents are in form of services they provide and the dependencies among them.Dependencies include the information flow which provide communication between patient and staff members. The goal of the project is to enhance collaborative of palliative care .For the better decision making and coordination of health care activities, system use autonomous agents.Autonomous agent is a system within the environment and helps to sense the environment.The agent should have 4 abilities like autonomy , reactivity,protectiveness and social ability.The agents are patient,caregiver,care coordinator, adminstrator,scheduling and monitoring agents.Agent based architecture supports patient centered palliative care delivery,helps to implement monitoring management and to realise agent based scheduling.

According to this paper [2]a low cost mobile health care monitoring system was presented .The system in ths paper is a device energized with rechargeable batteries.It is able to measure biomedical signals of the human body such as ECG,blood pressure,SaO2 and temperature.This system monitor signals and send to android device wirelessly,without missing data.It will be visualized,stored and finally shared with specialists.Multiple sensors and MCU are used to monitor biomedical signals.The data are sent by Bluetooth to Android device.This app work in all smartphones with Android and iOS.

In this paper [3], they proposed a novel agent based model to improve the capabilities of the agents using social network which will help to support patients. Here in this network they described two sets of patients and care provider agents who are working together.The role of care providers is to provide the patients with some external capabilities which will help to support the patients. The objective of the algorithm is to help the patients to find the accurate care provider with limited operational cost and processing time. We know some patients have ability to do their day to day task but some patients cannot. In this situation they have to take support from care takers. But each care takers will provide support to small number of people. So inorder to cover this situation agent based model is introduced.

According to this paper [4], a novel knowledge based algorithm is proposed to make a group of care providers for the patients under the community-oriented palliative care. The main objective of the project is to take care of patients and the optimization of human resource allocation. They provide trained care takers for the patients who loss their abilities due to their illness. But cost and distance is always a barrier. So inorder to overcome this situation, this project introduces a novel algorithm based on a cultural algorithm for grouping an optimal team of care providers. The main objective is to reduce cost and satisfy our needs.

The main aim of this paper [5]is that the electronic information integration help to justify and help in improving the business of all sectors.Ontologies is to achieve resolution of semantic heterogeneity.A conceptual framework and formalisation of framework is used to design ontology.Ontology can be implemented in two ways.first is creating clinical practice guidelines and second is to describe the use of ontology in palliative care system.Ontology is used for indicating palliative care.It can be implemented using four domains including process of individual patient care,parent and family care,governance and administration and program support.After building ontology, it is expanded and integrated existing ontologies to get clinical guideline creation and integrated palliative care system design.The upcoming population increases the need of palliative care.

According to the paper [6], With the rapid development of mobile phones, use of medical apps also increased by clinicians. These apps will help the doctor to access patient's information and medical records.Nowadays, using these mobile apps, doctors can get clinical reference, medicine dose etc. Many studies identifies harmful apps and they does not compromise with safety of patients. This paper shows different types of risk that medical apps will have and significant contextual variables which can alter these risk. A generic risk framework is developed for the users, developers and stakeholders to use in some particular apps in a particular situation. This will help to improves patient's safety and reduce the chance of risk.

This paper [7] Authentication is the process of recognizing the identity of a computer system user. The main methods of the authentication are smart card, biometric and using passwords. But every authentication process will have its own weakness or disadvantages. This paper shows different authentication process, vulnerabilities. Biometrics aunthentication include finger print, retina scan, iris scan etc. The two types of passwords are strong password and weak password. The strong password must contain atleast 12 characters. In smart cards authentication is done by using PIN numbers. Among all of these biometrics is consirdered to be the safest method of authentication.

In the paper [8] Vital sign monitoring systems helps the patients in palliative and intensive care .It is through the regular observation by detecting sudden changes in health status allow the staff to provider regular attention. Electrocardiography treatments needs patient to be permanently insisted to the bed. It restricts the independence and mobility of the patient, leads to the depression. So the palliative care avoid regular monitoring. So a single radar system method is used to perform continuous monitoring of respiration and heartbeat. A continuous wave radar using the Six-Port technology is used .The system is very feasible, high performance and real-time extraction.A radar system is implemented in elevated position in the patient room. This is connected to a central hub in which all datas are coming from different devicesare collected andsaved. The radar data are stored to allow for a sub sequent analysis.whenever there is abnormalities, such as an abnormal high heart rate or low heart rate an alarm signal is immediately produced. The alarm notification is displayed on mobile devices and, an acoustic alarm signal is triggered. System includes the reference sensors.Continuous contactless monitoring will give necessary information on the crises with the independence of the patient.this would provide distress, agitation and delirium. A radar system based on the Six-Port technology was proposed as solution. Reference sensors were used for validation.

This paper [9] introduces a video chat application for mutes is presented.The best language that people who are mute and deaf know communication is sign language for which they use different hand gestures called ASL and ISL.The main goal of this paper to help mutes and deaf by using CNN Deep learning algorithm.Different hand gestures of users is identified.This application will solve most of the problems faced by deaf and mute peoples.Mainly this project focus on ISL.For Mute and deaf people, this application is more convenient for their communication and easy to use.User can show hand gestures to camera then algorithm using CNN would detect the correct letter/number and send it to frontend.By builting this application we will overcome communication problems faced by mute and deaf people.

This paper [10] is a login portals for patients. They can access their medical information and they can communicate with health care providers. It has positive health outcomes and efficiency of healthcare. System can monitor the patients who are using this

app and the ones who are not. They also seek the reasons for the absence. The Unified Theory of Acceptance and Use of Technology (UTAUT) is the theory for the use of information technology. Performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention to use are the constructs used here. Self-reported portal, characteristics of users such as demographics, disease and Care-related data, eHealth literacy, and scores of UTAUT constructs are the outcomes of project. Approximately one-third of the patients self-reports use the system and most of them are satisfied with it. EHealth literacy scale were used to explain portal usage. The model shows the effort expectancy, ease of Use, knowledge and skills related to portal use, and performance expectancy. Interventions to improve awareness of the portal and eHealth Literacy skills of patients are better. Integration portal is needed to increase use and potential Benefits for patients.

In this paper [11], one of the upcoming newer health service is Palliative care. With the remarkable progression of Clinical skills and education, there is a lack of focus on palliative care interdisciplinary leadership. The important 5 realms are clinical practice, research, education, policy/advocacy, and administration. A successful leadership skill should be maintained. The main goal of palliative care is that it focus on the triple aim of lowering costs, improves the health through better outcomes, and enhance the patient care experience. The interdisciplinary leadership should be focused to ensure innovation .New models of care delivery, new clinical approaches, and innovation for mainstreaming palliative care are the new inventive. There will be wider aspect of leadership. Palliative leadership includes leadership in palliative care clinical practice.it aims at promoting excellence and evidence-based practice. Leadership in palliative care spans across disciplines, roles, and titles. Leadership training and education are needed within palliative care along with disciplines and understands the important leadership concepts and characteristics.It focuses on quality, patient-centered care. There will be rapid growth in palliative care across populations, so interdisciplinary leadership is essential. Successful palliative leadership needs the development of vital Leadership skills. It is to bring about policy change and advance the field of palliative care. Palliative care leadership is necessary to drive change in healthcare policy and promote consistent quality palliative care within the field.

Paper says that [12], for reporting live experiences from advanced head and neck cancer patients can be implemented using palliative care. Using a naturalistic, interpretative approach experiences can be integrated. A thematic approach, using a modified version of Colizzi's framework, was used to analyze the data. "Lack of consensus about timing of Specialist Palliative Care engagement'' and ''high stake decisions with uncertainty about treatment outcome.'' Are the two barriers. ''uncertainty about meeting psychological needs'' and ''misconceptions of palliative care.'' Are the two overlapping schemes.Since, Head and neck cancer has a less predictable disease trajectory, the complex decisions are made and treatment outcomes are less certain. Many barriers are there for integrating palliative care into cancer care. Lack of oncologists, unawareness about palliative care23; lack of effective communication between healthcare professionals and limited palliative care resources and misconceptions about palliative care, and lack of sufficient research funding are the main challenges.

Paper discuss that [13] food banks is distributing donated and purchased groceries directly to food insecure families. As the food insecurity has a higher prevalence among population the knowledge about the function and efficiency is comparatively low. Food banks have an immediate solutions to severe food deprivation but they are limited in their capacity.it is to improve overall food security outcomes due to the limited nutrient-dense foods. The food banks are a major component of food aid services. There should be strong need to address food insecurity. Food banks are valuable source of food assistance. Because of limited choice, and poor nutritional quality and quantity of donated food, there must be concern relating to the ability of food banks to prevent food insecurity and hunger. The goal is to identify the role of food banks in promoting food security and nutritional choices to those in need. It investigate the role of food banks in alleviating food security. It is best at meeting client needs and improves food security. More donations for food Provisions, educating staff and donors can improve the capacity of a food bank.

In this paper [14]. Book Bank facilitates the other users to investigate, use and get satisfied about the Book Bank Facility through its users. It seems to be very helpful to the students. It helps students to grow and enlightens the thought of students. As user is main entity, Users 'expectations and needs are the best sources to improve the quality of the service. Self-evaluation, helps to know about usefulness and necessity of it.When library offers facility to users, naturally library users have expectations of their own desires. The goal is to to find out users expectations about library and to know suggestions from users for development in the facility, and it emphasis on the preferences of students about books to be distributed.

Paper discusses [15] that Palliative care is a promising approach for addressing the needs and priorities of patients.

On expanding, it will require strategic and High-quality guide for clinical practice and public health policy. System deals with variety types users. Interdisciplinary methods are promoted in palliative care. Prediction regarding the illness are practiced. Supports the spirituality in bereavement and grief among family members. More research practitioners and care takers are promoted.it is the best cost effective method and also support the family member's too.data shoukd be collected for examining each patients it also provides validated and needful equipments with fee of cost.

In this paper [16], distress is a major life-threatening illness. Psychedelic-Assisted Therapies (PAT) are novel treatments that help in treating existential distress, but openness to providing PAT may be limited. A series of experiments are carried out for this. Now they use purposive and snowball sampling methods. Existential distress is frequently insufficiently treated within the current treatment framework.Convenience and snowball recruiting methods may have Bias toward the cultures and institutional orthodoxies.The sample of respondents was skewed toward younger and less experienced clinicians.The major goal is its broad inclusion of palliative care professional disciplines It focus on existing treatments for existential distress.

In this paper [17] Food banks are community-based response for food insecurity. In the light of few studies, it is examined that operational characteristics are used to explore the accessibility of the services. For people at riskof food insecurity. Descriptive statistics look on how often were open within local Authorities. The relationships between operational characteristics and volume of use were examined using regression analysis. That food banks should coordinate hours across local catchment areas and assess the area for the correct distribution.the needed ones receive the food correctly.

Paper discuss [18], clinical parameters like breathing patterns are more important for palliative care patients, but continuous respiratory monitoring is not really applicable ad it is not feasible. So more feasible sensing could allow palliative care patients to be monitored from their bed. A pressure sensor array was placed into the beds of two palliative care patients in a palliative care ward and four healthy participants at home. A number of common disordered breathing patterns were identified from the extracted respiratory signals of the palliative care patients. Trends in a proposed index of respiratory amplitude

and interval disturbance (RAID) uncovered periods of respiratory disturbance for the palliative care participants as well as the healthy participants. This study discuss about the bed based respiratory monitor Respiratory effort signals from ambient sensors is noted, producing Available data. Automation is the main peculiarity. Pressure sensors can also be placed alike these sensors. Feasibility of non-invasive, continuous monitoring of respiration and home-based palliative care males the palliative more attractive. Breathing signals were available for analysis during both day and night,and were independent of movement.
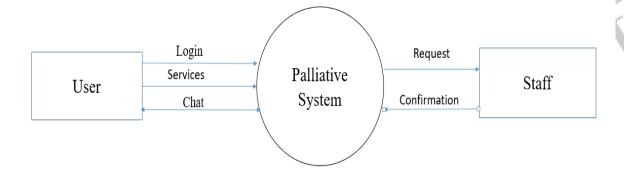
In this paper [19], Medical Decision is the challenging job as it may cause wrong decisions. This wrong diagnosis decision may risk life of a person.so we need another opinion because there must be have a lack of specialized doctors.MediAssistEdge system aims at conducting diagnosis by providing basic diagnosis of diseases. The goal is attained by MediConnect system which is an interface for doctor and patient. This diagnosis is made possible with the help of the two assisbeting hardware devices which comes integrated with the system and here diagnosis of disease is implemented by the DocBot subsystem which is an Artificial Intelligence (AI) engine to interact with patients and doctor will be in a reply box. The user like normal chatting. Based on the inputs, AI engine will provide diagnosis. The doctors can train the AI engine.

This paper [20]says that Telecommunication Development Bureau (BDT) implements of Telemedicine which is very
Popular.It should facilitate the solution of the principal health problems connected with infectious diseases, pediatrics,
where medical structures are inadequate or non-existing.Telemedicine gives benefit to any countries, it will be especially very helpful in developing countries, because these countries normally faced with problem of inadequate of lack of medical infrastructure. Implementation services requires multidisciplinary collaboration, with the active participation of telecommunication operators and health care professionals.The creation of national associations, committees are needed to bring together telecommunication and health professionals, lawyers, industry and others.

IV.METHODOLOGY

The main objective of this paper is to change file system to database. The application begins with a login page. if the person using this application who is not registered before they have an option to register and enter their details .After login, the first page carries availability of the doctors, and the icons for services ,chat, payment, med bank, activities. The service provides the number of ambulance, wheelchairs, water beds, etc. Through this booking, can be also done. By entering the location and details, these services are updated frequently. The next icon provide a chat interface between staff and clients. Through this appointment to consultation of a doctor can be taken. The next icon is payment, donations and contributions can be done through this. The very next icon is Med bank.it contains the medicines nad accessories like syringe, gloves, ,mask, cotton ,bandage.it also contains the quantity and history details. We can donate or but these things.

4.2 System model

III. RESULTS AND DISCUSSION

TABLE 1—Methods and Measures for Palliative Care Research Identified in a Review of 191 Articles (2005–2012) on Palliative and End-of-Life Care

Methods and Measures	No.[a] (%)
Rigorous study designs (e.g., RCTs, representative samples, control groups)	56 (28.6)
Longitudinal and prospective data collection and analysis	36 (18.4)
Adequate reporting of study aims and data collection methods	32 (16.3)
Validated and standardized assessment instruments	28 (14.3)
Qualitative research	16 (8.2)
Advanced quantitative and multivariate approaches	10 (5.1)
Mixed methods using both qualitative and quantitative designs	9 (4.6)
Enhanced recruitment and retention of study participants	9 (4.6)

Note. RCT = randomized controlled trial. In total, we identified 8 categories pertaining to research methods. Overall, these 8 categories comprised 20% of the total number of categories identified (n = 40).
[a]The numbers reported represent the total number of individual recommendations identified within review articles that fell within a specific category (e.g., the recommendation for more palliative care research using "rigorous study designs" was cited by 56 articles). The denominator used to generate the percentages listed in this table is the total number of individual recommendations tabulated in the area of methods (n = 196).

Rigorous study designs:to improve research methods for studying palliative care by noting the deficiencies in study, design.
Longitudinal and prospective data collection and analysis: for examining patient and caregiver problems over time.
Adequate reporting of study aims and data collection methods: aims at research questions, and reportmethods of data collection.
Validated and standardized assessment instruments: need for use ofstandardized and validated measurement tools.
Qualitative research: for identifying fundamental issues of findings
Advanced quantitative and multivariate approaches: to design complex approach to answer their research question.
Mixed methods using both qualitative and quantitative designs: it is the integrationof qualitative and quantitative assessments to enhance the validity of study results.
Enhanced recruitment and retention of study participants: toassist with recruitment,researchers advocated fordeveloping studies.

IV. ACKNOWLEDGMENT

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