

PsoriaBuddy: A Web-Based Symptom Management for Individuals with Psoriasis

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ABSTRACT

Psoriasis, a chronic autoimmune disease, significantly impacts the quality of life of individuals. This study aims to develop a web-based platform, "PsoriaBuddy," to address the specific needs of psoriasis patients. The platform offers a comprehensive suite of features, including educational resources, symptom tracking, and teledermatology consultations. By leveraging technology, PsoriaBuddy aims to improve patient engagement, facilitate communication with healthcare providers, and enhance overall disease management. The platform incorporates the Psoriasis Area and Severity Index (PASI) tool to assess disease severity and guide treatment decisions. Additionally, it provides educational information for stress management to foster support and connection among patients. Through a qualitative research approach, the study gained insights into the experiences and challenges faced by psoriasis patients. This information was used to inform the design and development of PsoriaBuddy. The platform is designed to be user-friendly and accessible, empowering individuals with psoriasis to take control of their health and improve their quality of life.

Keywords: Psoriasis teledermatology, skin disease, how to manage psoriasis, psoriasis and lifestyle, stress management, PASI to.

INTRODUCTION

Psoriasis is a chronic disease in which the immune system becomes overactive, causing skin cells to multiply too quickly, including infections, which activate the body's immune system and lead to inflammation in the skin [1]. This disease affects the entire body, not just the skin, creating visible skin abnormalities and is frequently associated with other disorders [2]. The condition arises due to a combination of various factors: the immune system, specific genes that predispose individuals to the condition, substances in the body that trigger an immune response, and various environmental influences [3]. When certain genetic and environmental causes activate the body's immune cells, this activation releases substances that cause inflammation[4]. Smoking may worsen psoriasis by making the illness more severe, increasing the chance of nail problems, and worsening heart disease[5]. The development and severity of psoriasis are also significantly influenced by stress. Obesity and physical injuries are other significant factors. Long-lasting psoriasis known as plaque psoriasis causes thick, scaly, red areas on the skin that can last for months or even years[6]. In the Philippines, there are already 1.8 million Filipinos that are having Psoriasis [7]. Based on the Global Scale there are up to 11.4% rates dealing with Psoriasis [8]. In terms of the history of cases of psoriasis, the prevalence of psoriasis in different countries is increasing [9]. Plaque psoriasis, also known as psoriasis vulgaris, is the most prevalent kind of psoriasis in the world (about 85-90%). Psoriasis can develop at any age but is most common in people between 20-40. The prevalence is significantly lower in those over 50-60 years[10]. Around 30% of psoriasis patients also have psoriatic arthritis, a chronic illness that is likewise closely related to the immune system. Psoriasis affects the skin, whereas psoriatic arthritis affects the joints and some regions of the body where ligaments and tendons connect to the bone[11]. Psoriasis is a significant dermatological condition in Davao City, with varying prevalence rates reported in recent studies. One study indicated that the prevalence of psoriasis among patients attending dermatology clinics was approximately 3.5%, highlighting a notable burden of the disease in this region[12].

The studies emphasize the need for increased awareness and better management strategies tailored to the unique environmental and cultural factors present in Davao City. Additionally, the psychosocial effects of psoriasis, such as stigma and mental health challenges, have been documented, underscoring the importance of holistic treatment approaches that address both physical and emotional well-being[13][14]. These statistics underscore the importance of targeted public health initiatives to improve diagnosing and treating psoriasis in Davao City[15]. An interview with a psoriasis patient revealed that managing psoriasis involves identifying and avoiding triggers such as stress and lack of sleep. The patient experiences first-degree psoriasis, which manifests as dry skin, redness, and mild itchiness. Topical treatments prescribed by dermatologists help alleviate symptoms and maintain skin hydration. Identifying triggers and using prescribed skincare products form the core of their management strategy. Common misconceptions about Psoriasis include confusion about infectious diseases, belief in its contagiousness, and lack of awareness about targeted/biological therapy, as highlighted in the study among the general population[16]. Patients with psoriasis encounter educational gaps in many aspects of their illness and treatment. A study found that many people with psoriasis are unaware of the increased risk associated with a lack of knowledge about the condition. With increased information regarding psoriasis and comorbid disorders, people are more involved in treatment[17]. Misalignment sub-themes include a lack of knowledge and an incorrect response to psoriasis by healthcare providers and society. Fear of social exclusion sub-themes included the incorrect notion that psoriasis is transmissible and the prospect of rejection[18].

It is important for the individual's well-being having psoriasis to manage the disease. Untreated psoriasis can affect an individual's quality of life. Causing discomfort and pain, embarrassment, and depression, in worse cases. For proper management of psoriasis, it is critical to monitor and avoid triggers including stress, specific foods, and drugs. Some individuals follow an elimination diet [19]. Comprehensive health literacy (HL) and education from healthcare professionals (HCPs) have a substantial influence on patients' self-management abilities and psoriasis knowledge, emphasizing the necessity of numerous educational techniques throughout time[20]. Patients' health literacy plays a significant role in their capacity to manage psoriasis properly. Higher health literacy levels correspond with greater quality of life and disease awareness[21]. Implementing educational programs customized to the educational needs of psoriasis patients can dramatically improve their understanding of the illness, treatment options, self-management measures, and general quality of life[22]. Video consultation provides various advantages to psoriasis patients, including better access to specialists, convenience, and increased patient empowerment. Studies have shown that telemedicine, particularly teledermatology via video consultations, can give reliable clinical information, correct diagnosis, and successful care of psoriasis patients[23]. Patients with psoriasis have indicated satisfaction with online consultations, finding them convenient and suitable for routine follow-up meetings, especially among those with stable disease[24].

Furthermore, video consultations in dermatology have been shown to give patients more freedom in their daily lives by reducing the need for in-person visits and allowing for better preparation before consultations, ultimately strengthening the patient-healthcare professional relationship and promoting patient reflexivity [25]. Overall, video consultation in psoriasis care can improve access, speed up care, and increase patient engagement in treatment.

Determining the severity of psoriasis poses a challenge due to the lack of standardized definitions and tools for assessment, leading to gaps in accurately identifying the severity of the disease[26][27][28]. The Psoriasis Area and Severity Index (PASI) is a crucial tool used to assess the severity of psoriasis, particularly in patients with moderate-to-severe conditions[29][30]. Furthermore, PASI plays a vital role in determining patient-reported outcomes, contributing to better healthcare decision-making and improved quality of life for psoriasis patients.

Hence, researchers aim to provide support for individuals suffering from psoriasis through the development of a web-based application that provides a bridge between patients and healthcare providers for convenient communication between them. This led to the development of the application called "Psoriabuddy" which is comparable to an already existing platform called "Psoriasis Monitor" Both offer valuable tools for managing psoriasis, yet they differ significantly in their approach and features, based on patient profiles and dermatologist recommendations, extensive educational resources, and interactive tools for tracking symptoms, journaling progress, and identifying through journaling. Additionally, Psoriabuddy addresses stress management with mindfulness exercises and also a Community Forum in which everyone with psoriasis can share their experience and inspire others given that psoriasis is a permanent disease with no cure provides easy access to dermatologists through recommendations and a video conference for psoriasis patients and the individual's dermatologist. In contrast, Psoriasis Monitor, designed by doctors, focuses on recording flare-up details via photos and notes, creating reports to identify patterns, and offering anonymous social networking, medication tracking, and periodic news and tips. It facilitates medical care by allowing doctors to review data and providing "Psoriasis Navigator" specialists to help interpret the data. Psoriabuddy's unique strengths lie in its personalization, educational resources, and Psoriasis management information. Integrating the strengths of both platforms could offer a more holistic approach to psoriasis management.

PsoriaBuddy, a web-based management platform, addresses the complicated challenges of individuals with psoriasis by providing a comprehensive, personalized approach. The platform tailors treatment information based on individual patient profiles and dermatologist recommendations, and it offers

extensive educational resources to increase patient awareness and understanding of psoriasis and its comorbidities. Tracking symptoms by providing the patients to write their experiences for the doctor could pre-assess the experience of the patient before consulting, and identifying potential triggers and also PsoriaBuddy would also have a Psoriasis Area and Severity Index (PASI) which would measure the severeness of psoriasis based on the user's input it would help the users and healthcare providers to identify patterns. Recognizing the impact of stress on psoriasis, PsoriaBuddy includes stress management resources such as mindfulness exercises and FAQs for Quick Access to information and Improve User Engagement. Additionally, PsoriaBuddy facilitates easy access to recommendations from dermatologists, ensuring timely and continuous care. Also, PsoriaBuddy offers video consultations to consult individuals with psoriasis in the comfort of their homes. To ensure data privacy and data security PsoriaBuddy includes Email verification upon Sign-up you would get an Email verification which you need to verify via the imputed email to confirm that the Email that you've inputted is legit. The system would also send an OTP every Login which will be sent to the respective emails of our dear users patients and the dermatologist to ensure the information gathered is safe and secure.

Table 1 compares the features of Psoriasis Monitor, Bezyy Psoriasis App, and the planned Psoriabuddy application. Unlike the other two applications, Psoriabuddy has a "My Experience" option that allows users to record their unique psoriasis journey, which helps them track symptoms and discover triggers. It also includes video consultations, which were previously unavailable in both Psoriasis Monitor and the Bezyy Psoriasis App, allowing users to communicate with healthcare specialists from the comfort of their own homes. Psoriasis Monitor allows you to schedule appointments, however Bezyy Psoriasis App does not. Psoriabuddy has this vital capability, allowing customers to conveniently plan appointments with associated dermatologists. Psoriasis Monitor and Psoriabuddy offer educational tools to assist users understand and manage their illness, however Bezyy Psoriasis App does not. Psoriabuddy introduces the Psoriasis Area and Severity Index (PASI), a standardized technique for evaluating psoriasis severity. This function is not accessible in either Psoriasis Monitor or Bezyy Psoriasis App, making Psoriabuddy the clear alternative for individuals seeking a more complete approach to monitor their disease. Psoriabuddy fills the gaps in existing applications by providing a comprehensive and user-friendly platform. Its goal is to provide folks with tools and information that actually help them manage their psoriasis.

Table 1. Similar Application for Psoriabuddy

Features	Psoriasis Monitor	Bezyy Psoriasis App	Psoriabuddy
My Experience	X	X	✓
Video Consultation	X	X	✓
Set Appointments	✓	✓	✓
Educational Resources	✓	X	✓
PASI Standardized Tool	X	X	✓

Objectives of the Study

General Objective

This study aims to develop a web-based platform designed for individuals with psoriasis. This platform will provide essential educational resources and tools in support of managing their condition.

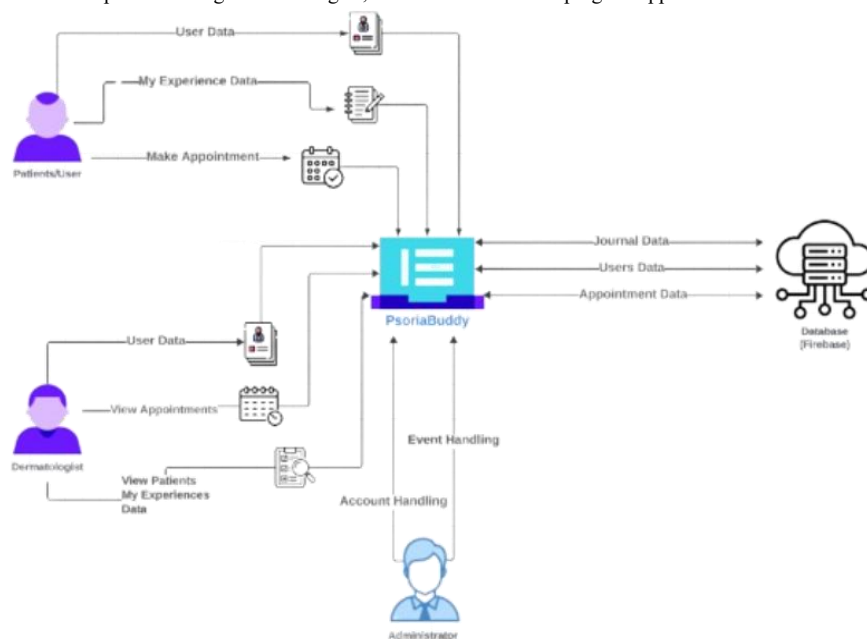
Specific Objectives

Specifically, the researchers aim to develop a web-based platform that:

- can provide educational resources in line with the essential information about psoriasis and its symptom management.
- enables users to write their experiences, track symptoms, and identify triggers.
- allows access to professional care by enabling users to schedule consultations with dermatologists.
- Integrates the Psoriasis Area and Severity Index (PASI) tool into the system will enable the user to assess the severity of the psoriasis symptoms.

METHODS AND MATERIALS

Research Method: Several individuals suffer from psoriasis, necessitating a web-based application to assist them in managing their condition. To thoroughly understand how psoriasis impacts individuals' lives and the challenges they encounter, the researchers employed a Qualitative Research Approach. This technique gives detailed insights into personal experiences and obstacles that psoriasis patients face. By focusing on qualitative data, the researchers aim to uncover nuanced perspectives and develop tailored features for the application that address specific needs and improve the quality of life for psoriasis patients. As part of this research, the team interviewed an expert in the field, specifically a board-certified Dermatologic Surgeon. The insights gained from this interview, particularly regarding the clinical aspects of psoriasis and patient management strategies, were invaluable in shaping the application's features.



Conceptual Framework

Figure 1: Conceptual Framework of Psoriabuddy

PsoriaBuddy is a web-based platform designed to help individuals educate themselves about psoriasis and ways to manage it. To access educational information about Psoriasis, users are not required to log in or create an account.

Patients must create an account to access features like My Experience, where they can document their personal experiences and treatments. The information they provide will be shared with their chosen dermatologist. Patients can also use the PASI (Psoriasis Area and Severity Index) feature to assess the severity of their psoriasis. Additionally, they can schedule appointments with their dermatologist, choosing between online or in-person consultations.

For Dermatologist Verification, when a dermatologist creates an account, it must be verified by the admin before accessing the application. The dermatologist will need to provide the required documents, including personal information, a valid Professional Regulation Commission (PRC) ID, and proof of Philippine Dermatological Society (PDS) qualification. Until the admin completes the verification process, the dermatologist will not have access to the platform's features or patient data. Once verified, the dermatologist can begin accommodating patients.

Once dermatologists have their accounts, they can manage their accounts, view patient Documents like My Experience and their Details to pre-assess patients before the scheduled appointment, and Approving schedules for pending appointments Dermatologists can approve appointments if a patient requests an appointment the dermatologist would schedule the time and date for the consultation whether it is online or in-site consultation and communicate with patients. The Dermatologist could also decline if the derma is not available. The administrator can manage user accounts for both patients and dermatologists. This includes approving dermatologist accounts after verifying that all required documents have been submitted. Administrators are also responsible for updating the Events and announcements.

Design Procedure (SDLC)

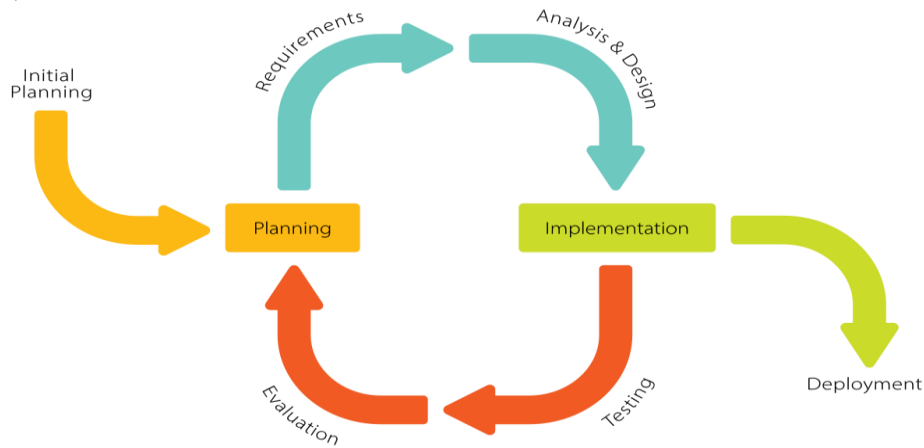


Figure 2: Iterative Model

The researchers chose the iterative design process to ensure the delivery of an application that meets the approval of our clients. Iterative from the name itself has repetitive cycles, encompassing initial planning, planning, requirements gathering, analysis and design, development, testing, evaluation, and deployment [31]. This iterative process will allow us to take in client feedback and make necessary adjustments to ensure the delivery of an application that meets all requirements.

First Iteration

Planning

The researchers, comprising a Programmer, a Project Manager, and a UI/UX Designer, convened to brainstorm and select a research topic. Inspired by a team member's personal experience, they focused on Psoriasis, aiming to develop solutions to manage its symptoms. To guide their research, The researchers created a work plan to set schedules and important milestones that needed to be completed as the project progressed.

Requirements Gathering and AnalysisThe researchers gathered literature and information about Psoriasis. They interviewed professionals, dermatologists, and individuals with Psoriasis to collect insights on the current challenges associated with the condition. The researchers also obtained information from dermatologists and validated their learnings about Psoriasis. All the information gathered by the researchers provided an idea of how they would approach the study. The researchers collected related literature that provided more information and insights about existing technologies related to Psoriasis. This gave the researchers an understanding of the current status of assistive technologies for individuals with Psoriasis. The researchers interviewed psoriasis patients as well as specialists in the area. This enabled the researchers to gather information about the local state of individuals with Psoriasis. During the requirements gathering phase, the researchers analyzed the information obtained from the conducted interviews. The initial interview participants were individuals with psoriasis, and others were experts in psoriasis. The interviews provided the researchers with a clear understanding of the difficulties faced by these individuals. Documentation was provided for interviewing stakeholders involved in the study, such as recording devices and transcripts of interviews for the integration of the data gathered by the researchers. Consent forms were provided by the researchers, documenting the willingness of the interviewees to answer the questions. The researchers identified the initial features that would be included in the PsoriaBuddy application; these requirements that were gathered were put into a proposal that was later presented to the research adviser before proceeding with the design process.

Design

In this design phase of the project, the researchers focused on the Minimum Viable Product (MVP) to provide the most functionality in addressing the identified challenges in the requirements gathering. The features that were incorporated into the system were as follows:

Table 2. Modules and Functionalities

Module	Functionality
My Experience Feature	My Experience feature in our web application enables patients to input and record their experiences, triggers, and symptoms, facilitating clear and detailed communication with their dermatologist.
Appointments Feature	The Appointment feature makes it easy for patients with skin conditions to schedule consultations with their dermatologist. This feature streamlines access to professional advice, promoting better management of skin diseases.
Video Call Feature	This functionality enables individuals to engage with their dermatologist while ensuring their information remains secure and confidential.
PASI Tool Feature	A feature that enables users to measure the severity of their skin disease by indicating score points based on the disease's severity.

Implementation and Development

In this stage, the researchers identified the technology used to implement the system.

Table 3: Technology Tools Implementation of the Application

Tools	Description
Visual Studio Code	A lightweight programming IDE Developed by Microsoft, this allows supporting multiple programming languages and offers code completion and customization.
React	React, or React.js or ReactJS, is a JavaScript library for building user interfaces. Facebook and a community of developers maintain it. React allows developers to create reusable UI components that manage their state, making it efficient and easy to build complex, interactive UIs for web applications.
Firebase	Firebase is a platform developed by Google for creating mobile and web applications. It provides a suite of tools and services to help developers build and manage apps, including real-time databases, authentication, analytics, cloud storage, and more. Firebase allows developers to focus on creating great user experiences without worrying about infrastructure.
Versel Hosting	Vercel is the company behind the development of Next.js. Previously known as Zeit, it was primarily focused on providing hosting for Node.js applications. However, it has since expanded to become a cloud platform for static sites and serverless functions, offering features such as global CDN, custom domains, and automatic HTTPS.
Figma	A cloud-based design tool used for user interface prototyping and designing. Multiple users can work simultaneously on projects in real time.
ZEGOCLOUD	is a real-time audio and video communication platform that provides tools and services for building interactive applications. It is commonly used for live streaming, video conferencing, online education, gaming, social networking, and telehealth.

The researchers utilized several powerful tools that offered distinct advantages in implementing the project. Visual Studio Code, the chosen code editor, provided a lightweight and customizable environment with extensive language support and debugging capabilities. Its versatility and numerous extensions made it an ideal choice for efficient development. React, also known as React.js or ReactJS, was a JavaScript library for building user interfaces. Facebook and a community of developers maintained it. React allowed developers to create reusable UI components that managed their state, making it efficient and easy to build complex, interactive UIs for web applications. To handle the backend infrastructure, Firebase emerged as a valuable solution as an end-to-end backend server. Firebase provided secure APIs and offered built-in user authentication, real-time database management, and cloud storage. Vercel Hosting served as a hosting service for the system, enabling seamless integration of backend functionalities. The researchers utilized Figma, a cloud-based design tool. Figma enabled collaboration and real-time editing among multiple users, streamlining the interface design and prototyping process. Finally, the researchers utilized Zegocloud, which specialized in providing robust real-time communication solutions, enabling developers and businesses to integrate audio, video, and messaging capabilities into their applications. With these tools, the researchers achieved a streamlined and efficient implementation process, delivering a robust and user-friendly solution.

Testing

In this phase, the researchers showcased the prototype and front end to professionals who handled patients with skin diseases, particularly Psoriasis. There were a few minor changes, but they were resolved quickly.

Evaluation

During the first stage of the PsoriaBuddy Web application evaluation process, we presented and defended our research proposal through a comprehensive pitch deck presentation. Our goal was to showcase its feasibility within the designated development timeline. The panelist suggested that the researcher consider some changes to the app design of the system. The target audience for the research remained the same, catering to individuals with psoriasis.

SECOND ITERATION

After completing the initial iteration, the researchers moved into the second iteration, incorporating modifications and improvements based on the feedback they received. This process involved retaining some features, modifying others, and removing some components. The primary goal of the PsoriaBuddy web-based application remained focused on providing a supportive platform for individuals with psoriasis and their dermatologists.

Planning

In the second iteration, the planning phase concentrated on refining the flow and conceptualization of the Psoriabuddy platform. Feedback from the initial iteration was carefully reviewed, and additional research was conducted to explore potential new features and functionalities to enhance usability and effectiveness.

To gather qualitative insights, the researchers engaged in interviews with key stakeholders, including dermatologists and patients. These discussions provided valuable input on user needs, pain points, and preferences, ensuring the proposed changes aligned with the expectations of the target audience.

Requirements

In this phase, The researchers refined the project's structure to align objectives with user needs. To address concerns about dermatologist verification, a process was implemented that required administrators to confirm licenses with trusted regulatory bodies like the Professional Regulation Commission (PRC), enhancing the platform's credibility. User data security was improved through a One-Time Password (OTP) system for secure logins. The scheduling feature was simplified, enabling patients to choose their preferred consultation times while dermatologists finalized schedules, with location-based filtering.

Interviews and surveys with stakeholders and potential users revealed challenges faced by individuals with psoriasis, emphasizing the need for enhanced security, better educational resources, and streamlined scheduling. Analyzed data ensured that proposed solutions effectively tackled these issues.

Analysis and Design

Based on feedback from the previous iteration and the insights gained from stakeholder consultations, the team refined the application's design and functionality:

- **Enhanced Security** - The login process was strengthened by implementing OTP-based authentication, which ensured that only authorized users could access sensitive data.
- **Verification of Dermatologists** - A verification process was incorporated to ensure that only licensed dermatologists could access features like patient records and teledermatology consultations.
- **Educational Resources** - Content creation and updates were assigned to developers, with licensed dermatologists reviewing materials to ensure accuracy and credibility.
- **Additional Features** - An event banner was added to highlight psoriasis-related activities, while the community space feature was replaced with a Frequently Asked Questions (FAQs) section for easier navigation.

Implementation: During the implementation phase, the researchers focused on integrating new features and refining existing ones according to the updated design specifications. Enhancements such as the OTP login system, proper streamlined scheduling, and dermatologists' verification were finalized and integrated into the platform.

Testing : After implementing the planned changes and updates in the second iteration, the researchers conducted functional testing to ensure the platform's features are working as intended. This testing phase was conducted among individuals with an IT background, who assessed the functionality and performance of the platform against the identified use cases.

Evaluation. Feedback was gathered from the IT testers through post-testing surveys. According to their responses, most of the platform's functions and features are performing as expected. However, the video call feature, specifically the generation of video meeting links, was not functioning properly.

THIRD ITERATION

After completing the second iteration, the researchers proceeded to the third, incorporating modifications and improvements based on feedback from the panelists during the final defense. This phase involved retaining certain features, refining others, and removing components that no longer served the project's objectives. The primary goal of the PsoriaBuddy web-based application remained focused on offering a supportive platform for individuals with psoriasis and their dermatologists.

Planning

During the third iteration, the planning phase emphasized engaging psoriasis patients for results and feedback and consulting a dermatologist to verify the legitimacy of dermatological processes. Feedback from the second iteration was thoroughly reviewed, and additional research explored potential new features and functionalities to enhance the platform's usability and effectiveness.

To gather insights, the researchers conducted interviews with key stakeholders, including dermatologists and patients. These discussions provided valuable input on user needs, particularly regarding the verification process for dermatologists. This ensured that the final updates met the expectations of the target audience.

Requirements

In this phase, the researchers refined the project's framework to align objectives with user needs. To address concerns about dermatologist verification, they implemented a process where administrators verified licenses with trusted regulatory bodies, such as the Professional Regulation Commission (PRC). This approach enhanced the platform's credibility.

Furthermore, the system required verification that the title "Dermatologist" be exclusively granted to licensed medical doctors who have completed a rigorous three-year residency training program accredited by the Philippine Dermatological Society (PDS). These individuals must also pass the PDS specialty board examination to earn the title. The inclusion of these requirements ensures that only certified dermatologists, who have undergone a minimum of 13 years of education and training, are featured on the platform. This level of verification was critical to maintaining user trust and ensuring accurate professional representation.

Key improvements included:

- **User Authentication:** Integration of Google login for patients, featuring dynamic avatars and user-type indicators for a more personalized experience.
- **Event Indicators:** Addition of "New" labels for unopened events and interactive modals for event details to boost user engagement.
- **Streamlined Access:** Simplified login and sign-up processes via modals, offering separate options for patients and dermatologists. Role-based login routes redirected users to their respective dashboards.
- **Dermatologist Account Management:** A dedicated sign-up page and backend support were introduced for dermatologist account creation. Verification processes required dermatologists to submit forms, with limited access to key features until verification was completed.
- **Admin Features:** Enhanced admin functionality included an improved sidebar layout and a verification page for efficient review and approval of dermatologist accounts.

Interviews and surveys with stakeholders and potential users highlighted key challenges faced by individuals with psoriasis, such as the need for better security measures, educational resources, and streamlined scheduling. Data analysis ensured the proposed solutions effectively addressed these concerns.

Analysis and Design

Informed by feedback from the previous iteration and insights gathered during stakeholder consultations, the team enhanced the application's design and functionality.:

- Security Improvements:
 - Implemented OTP-based authentication to enhance login security.
 - Introduced a verification process for dermatologists to ensure only licensed professionals access sensitive features like patient records and teledermatology.
- Feature Refinements:
 - Developers create educational content; licensed dermatologists review it for accuracy.
 - Added an event banner to highlight psoriasis-related activities.
 - Replaced the community space feature with a Frequently Asked Questions (FAQs) section for better navigation.

Google Login Integration

- Enabled Google login for patients.
- Dynamic Avatars:
 - Navigation and sidebar avatars dynamically update based on logged-in user (Admins, Dermatologists, Patients).
 - Sidebar displays user-specific information, including user type.
- Account Identity Note:
 - Google login creates a new identity separate from the email/password login process, leading to distinct profile data.

Homepage Updates

- Event Icon Indicator:
 - Added an indicator to the event icon.
 - Clicking the event icon opens a modal.
 - Added a "New" label to unopened event cards.
- Login/Sign-Up Modal Navigation:
 - Login and Sign-Up buttons now open modals with options for both Patients and Dermatologists.

Login Process Updates

- Patient Login:
 - Redirects patients to routes starting with /u/p.
 - Displays "Account type not Patient!" if a non-patient attempts to log in.
- Dermatologist Login:
 - Redirects dermatologists to routes starting with /d/p.
 - Displays "Account type not Dermatologist!" if a non-dermatologist attempts to log in.

Dermatologist Account Creation

- Sign-Up Page:
 - Designed a dedicated Dermatologist Sign-Up page.
 - Added backend functionality for the sign-up process.
- Verification Process:
 - Dermatologists fill out a verification form.
 - Firebase storage limits prevent image/pdf attachments.
 - Disabled Appointment and Video Call features on Sidebar until verification is complete.
 - Alert messages notify users about their verification status.

Admin-Side Improvements

- Verification Page:
 - Created a page for Admins to review dermatologist verification forms.
 - Admins can approve or reject verifications directly from the page.
- UI Enhancements:
 - Redesigned the sidebar layout.
 - Added a new menu group for Accounts and Verification.

Implementation

During the implementation phase, the researchers focused on integrating new features and refining existing ones according to the updated design specifications. Updates included Google login integration with dynamic avatars and user type display, event icon indicators, new login/sign-up modal navigation, improved login processes for patients and dermatologists, a dedicated dermatologist sign-up and verification process, and enhanced admin-side functionality, including a new verification page and improved sidebar UI.

Testing

After implementing the planned changes and updates in the third iteration, the researchers performed functional testing to ensure that the platform's features were working as intended. This testing phase involved individuals with an IT background who evaluated the platform's functionality and performance.

Evaluation

Feedback was collected from the patient testers through post-testing surveys. Based on their responses, most of the platform's features were functioning as expected. However, the Upload Button/Attachments, Generate Meeting Link Button, and the ability to access the Video Page using the generated meeting link were not functioning properly.

Testing Procedure

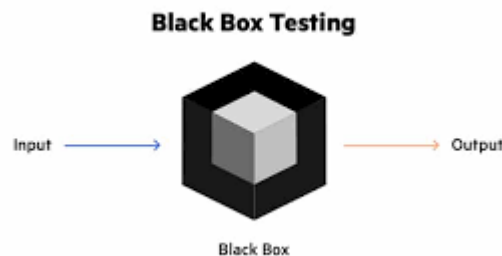


Figure 3: BlackBox Testing Model

The testing procedure for this application employed Blackbox testing to determine technology acceptance, allowing developers and implementers to address user concerns more effectively. Using Blackbox led to a better understanding of user needs and preferences and enabled the creation of more user-friendly and effective technologies. This resulted in higher user satisfaction and greater engagement with the technology. Blackbox also allowed researchers to adapt, extend, or modify it to suit specific contexts or emerging technologies. Researchers incorporated additional constructs or contextual factors to enhance their relevance and applicability.

Using Blackbox provided a strong framework for understanding the complexities of technology acceptance. Its comprehensive nature, predictive power, and practical applicability made it an essential tool for researchers and practitioners aiming to enhance technology adoption and user experience.

The testing occurred face-to-face or online to allow accessible interaction and feedback. Researchers gave the application to the testers in a controlled environment where they monitored the testing process and addressed any issues or questions. This setting provided testers with a more comprehensive understanding of how the application performed in real-world scenarios, as well as the ability to express their feedback more clearly and spontaneously.

During the testing sessions, the researchers walked testers through the application and gathered feedback. Testers were asked to complete a series of tasks with the application, such as creating an account, viewing the educational resources, logging their symptoms and information details, and setting appointments. Their experiences were thoroughly documented to identify any usability issues, bugs, or areas for improvement.

Researchers examined how easily testers navigated the application, understood its features, and achieved their goals. The results provided researchers with insights and feedback, allowing them to make necessary changes as soon as possible. This immediate interaction was critical for detecting subtle issues. Furthermore, it enabled researchers to ask follow-up questions and delve deeper into specific topics raised by testers. Additionally, creating a comprehensive Test Plan for the PsoriaBuddy Web-Based application involves utilizing Black Box Testing methods and the Unified Theory of Acceptance and Use of Technology (UTAUT) model to ensure thorough evaluation. Black Box Testing focuses on the external workings of the software, without knowing its internal workings, to validate functionality and overall performance. The UTAUT model helps assess user acceptance and readiness to use the technology, providing insights into user satisfaction and potential adoption barriers.

Table 4: Psoriabuddy’s Functionality and Expected Outcome Patient Side

Table 4.1. Patient Side Module and No. of Test Case

Module	No. of Test Case
User Management Module	11
My Experience Module	11
Set Appointment Module	5
Video Consultation Module	3

Dermatologist side

Table 4.2. Dermatologist Side Module and No. of Test Case

Module	No. of Test Case
User Management Module	11
Dermatologist Verification	26
Appointment Module	8
Video Consultation Module	3

Admin side

Table 4.3. Admin Side Module and No. of Test Case

Module	No. of Test Case
User Account Module	2
Events Module	1

Table 4 outlines the functionalities to evaluate the developed application using Black Box Testing, with each functionality linked to a specific expected outcome.

The Unified Theory of Acceptance and Use of Technology (UTAUT) plays a crucial role in the development of the PsoriaBuddy Web-Based application by providing a comprehensive framework to assess how potential users might accept and use the application. This model is particularly important for PsoriaBuddy as it aims to serve a diverse user base with varying degrees of technological proficiency and expectations from on-demand service platforms. By evaluating factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions, the UTAUT model helps identify what drives user adoption and continued use of the app. This understanding enables the PsoriaBuddy development team to tailor the application's features, usability, and support services to meet the users' needs effectively. The Table above shows the categories of the UTAUT evaluation that are divided into five (5): 1. Performance Expectancy (PE), 2. Effort Expectancy (EE), 3. Social Influence (SI), 4. Facilitating Conditions (FC), and Behavioral Intentions (BI).

Table 5: Unified Theory and Acceptance and Use of Technology Categories

Performance Expectancy (PE)	
PE1	I find that PsoriaBuddy provides essential educational resources about psoriasis and symptom management.
PE2	PsoriaBuddy allows me to document my experiences, track symptoms, and identify triggers effectively.
PE3	Using PsoriaBuddy enables a convenient way to schedule consultations with dermatologists for professional care.
PE4	PsoriaBuddy integrates the Psoriasis Area and Severity Index (PASI) tool, making it easier to assess the severity of my symptoms.
Effort Expectancy (EE)	
EE 1	It is simple for me to learn how to use PsoriaBuddy to track my symptoms and experiences.
EE 2	My interaction with PsoriaBuddy, including accessing resources and scheduling appointments, is straightforward and user-friendly.
EE 3	The application is intuitive and easy to navigate for both tracking and consultation purposes.
EE 4	Overall, I find PsoriaBuddy easy to use for managing my psoriasis journey.
Social Influence (SI)	
SI 1	People who matter to me believe I should use PsoriaBuddy for better psoriasis management.
SI 2	People who influence my behavior believe I should utilize PsoriaBuddy’s features, such as symptom tracking and PASI assessments.
SI 3	If others with psoriasis use PsoriaBuddy, I will also see value in using it.
SI 4	Overall, the people important to me encouraged me to use PsoriaBuddy.
Facilitating Conditions (FC)	
FC 1	I have the necessary resources and tools to effectively use PsoriaBuddy for symptom management and consultations.
FC 2	I am familiar enough with PsoriaBuddy to leverage its features, such as the PASI tool and experience tracking.
FC 3	PsoriaBuddy integrates seamlessly with the technologies I already use, making it convenient to access its features.
FC 4	When I encounter difficulties using PsoriaBuddy, I can readily seek help or guidance.
Behavioral Intentions (BI)	
BI 1	I intend to use PsoriaBuddy to access educational resources and track symptoms in the coming months.
BI 2	I anticipate scheduling consultations and assessing symptom severity using PsoriaBuddy soon.
BI 3	I plan to rely on PsoriaBuddy to manage my psoriasis consistently over time.
BI 4	In general, I intend to utilize PsoriaBuddy regularly to enhance my psoriasis treatment experience.

Rating Scale and Interpretation

In this study, a five-point Likert scale was employed to assess participants' responses. The scale includes five levels of agreement, each corresponding to a specific numerical range and verbal interpretation. The table below illustrates the weight, mean range, and verbal interpretation used in the analysis:

Weight/Scale	Mean Range	Verbal Interpretation
5	4.51 - 5.00	Strongly agree
4	3.51 - 4.50	Agree
3	2.51 - 3.50	Moderately agree
2	1.51 - 2.50	Slightly agree
1	1.00 - 1.50	Disagree

The mean ranges and their corresponding verbal interpretations provide a systematic approach to quantify and interpret participants' perceptions. A

higher score (4.51-5.00) indicates strong agreement with the given statement, while a lower score (1.00-1.50) represents disagreement. This rating system enables a standardized analysis, ensuring consistent evaluation of the data collected.

Threshold: The Psoriabuddy platform underwent rigorous internal functional testing using predefined test cases that assessed all critical features and functionalities. A threshold of 85% pass rate was set as the benchmark for acceptable system performance, emphasizing the platform's need for reliability and accuracy in serving psoriasis patients, dermatologists, and administrators.

The pass rate was calculated using the following formula:

$$\text{Pass Rate} = \left(\frac{\text{Number of Passed Test Cases}}{\text{Total Number of Test Cases}} \right) \times 100$$

Ethical Considerations

Data Privacy and Security

PsoriaBuddy must ensure the confidentiality, integrity, and availability of patient data. All personal and health-related information collected through the platform must be securely stored and only accessible to authorized personnel. Proper mechanisms such as encryption, two-factor authentication (2FA), and regular security audits should be in place.

Informed Consent: Before users can utilize PsoriaBuddy, they must provide informed consent to collect, process, and store their personal and medical information.

Accessibility and Equity: PsoriaBuddy promotes inclusivity, ensuring that the platform is accessible to individuals with varying levels of technological literacy and those with disabilities. Efforts must be made to bridge the digital divide, providing access to marginalized or underserved communities, especially those in rural or remote areas.

Patient Autonomy and Empowerment : Patients should retain control over their health data and decisions related to their treatment. PsoriaBuddy should provide clear educational content to enhance patient literacy on psoriasis and empower users to make informed decisions about their care.

Professional Accountability

The platform must require the credentials of dermatologists through valid documentation (e.g., PRC licenses, board certifications, And Proof of PDS Qualification). This ensures that patients receive accurate and professional medical advice, upholding the ethical practice of medicine.

RESULT AND DISCUSSION

Functional Testing of the application Psoriabuddy’s Functionality and Expected Outcome Patient Side

Table 7.1 shows The results for the patient side show promising progress in most areas, but there's still some work to be done. The User Management Module and the My Experience Module both passed scoring a 100%. This means patients can easily manage their accounts and document their experiences with psoriasis, which are critical features for engagement and tracking.

The Set Appointment Module also performed well, completing all its test cases. This ensures that patients can book appointments with dermatologists without any issues. However, the Video Consultation Module didn’t pass any of its test cases.

Table 7.1. Patient Side Module and No. of Test Case

Module	No. of Test Case	Remarks
User Management Module	11	100%
My Experience Module	11	100%
Set Appointment Module	5	100%
Video Consultation Module	3	0%

Dermatologist side

Table 7.2. Dermatologist Side Module and No. of Test Case

Module	No. of Test Case	Remarks
User Management Module	11	100%
Dermatologist Verification	26	80.769%
Appointment Module	8	100%
Video Consultation Module	3	0%

The dermatologist side has some solid results like the patient side, the User Management Module passed all its test cases, ensuring that dermatologists can manage their accounts without trouble. The Dermatologist Verification Module, on the other hand, completed about 80.769% of its test cases successfully. This shows that the verification process is mostly working. The Appointment Module performed perfectly, which means dermatologists can manage their schedules effectively a crucial feature for streamlining patient interactions. However, the Video Consultation Module, much like on the patient side, failed all test cases.

Admin side

Table 7.3. Admin Side Module and No. of Test Case

Module	No. of Test Case	Remarks
User Account Module	2	100%
Events Module	1	100%

The admin side is where things look rock-solid. Both the User Account Module and the Events Module passed all their test cases. This means the administrative tasks like managing user accounts and organizing events (such as awareness campaigns or webinars) are fully functional and ready to support the platform’s backend operations.

Testing Results

Table 8 highlights the performance expectancy (PE) of the PsoriaBuddy web application based on user feedback. Users seem to agree that PsoriBuddy meets their expectations regarding the application’s performance. The average rating of 4.07 shows that people generally find the platform useful and effective in addressing their needs. Looking closer at the individual items, it’s clear that different features stand out in different ways. Users gave a 3.91 for PsoriBuddy’s educational resources on psoriasis and symptom management. It’s slightly lower than the scores for other features, which might suggest room for improvement. Both tracking symptoms and scheduling consultations (PE2 and PE3) received a solid 4.00, showing that these tools are practical and valuable for users. The integration of the PASI tool (PE4) was the real highlight, scoring the highest at 4.38. It seems people appreciate how this feature helps them assess the severity of their symptoms easily. The variability in responses, reflected by the standard deviation (ranging from 0.51 to 0.87), suggests that while most users share similar opinions, a few might have different experiences. Overall, the platform is performing well, and the feedback indicates a good level of consistency in how users view its features.

Table 8. User’s Mean and Standard Deviations of Performance Expectancy

Construct	Measurement Instrument	Mean	Standard Deviation	Descriptive Level
PE1	I find that PsoriaBuddy provides essential educational resources about psoriasis and symptom management.	3.91	0.51	Agree
PE2	PsoriaBuddy allows me to document my experiences, track symptoms, and identify triggers effectively.	4.00	0.71	Agree
PE3	Using PsoriaBuddy enables a convenient way to schedule consultations with dermatologists for professional care.	4.00	0.87	Agree
PE4	PsoriaBuddy integrates the Psoriasis Area and Severity Index (PASI) tool, making it easier to assess the severity of my symptoms.	4.38	0.70	Agree
	Overall	4.07	0.71	Agree

Table 9 highlights the effort expectancy (EE) of the PsoriaBuddy web application based on user feedback. Most users agree that PsoriaBuddy is pretty easy to use, with an overall average rating of 3.83. This shows that people generally find the platform user-friendly, though some areas could be improved. Looking at the details, learning how to use the app to track symptoms (EE1) got a score of 3.6, which is still positive but a bit lower than the others. This might mean that some people find it a little tricky at first. On the bright side, interacting with PsoriaBuddy—like accessing resources or scheduling appointments (EE2)—scored a 3.9, showing that most users feel the app is simple to navigate once they get the hang of it. The app’s intuitive design (EE3) received the highest score, a 4.0, which suggests that users appreciate how easy it is to navigate for tracking and consultations. Finally, users gave a 3.8 for the overall ease of managing their psoriasis journey (EE4), indicating that the app is effective in helping them with day-to-day management. As for consistency, the standard deviation numbers show some variation, especially for learning how to use the app (EE1), which had the widest range of responses. This means that while most users agree the app is easy to use, a few may have found it a bit more challenging in certain areas.

Table 9. User’s Mean and Standard Deviation of Effort Expectancy

Construct	Measurement Instrument	Mean	Standard Deviation	Descriptive Level
EE1	It is simple for me to learn how to use PsoriaBuddy to track my symptoms and experiences.	3.6	1.02	Agree
EE2	My interaction with PsoriaBuddy, including accessing resources and scheduling appointments, is straightforward and user-friendly.	3.9	0.83	Agree
EE3	The application is intuitive and easy to navigate for both tracking and consultation purposes.	4.0	0.63	Agree
EE4	Overall, I find PsoriaBuddy easy to use for managing my psoriasis journey	3.8	0.60	Agree
Overall		3.83	0.79	Agree

Table 10 highlights the social influence (SI) on the adoption and usage of the PsoriaBuddy web application based on user feedback. The results suggest that social influence factors significantly impact users’ decisions to engage with the platform. Overall, users gave an average rating of 3.83, indicating a generally positive perception of how others influence their behavior regarding PsoriaBuddy. Looking more closely, SI3—representing the statement “If others with psoriasis use PsoriaBuddy, I will too”—received the highest score of 4.2. This highlights the strong motivational effect of seeing others with similar conditions use the application, which can encourage a sense of trust and shared value in its features. SI4, which evaluates the influence of people important to users, such as family or close friends, followed closely with a score of 3.9. This emphasizes the impact of personal relationships on the willingness to adopt PsoriaBuddy. SI2, which reflects the behavioral influence of others—such as encouraging symptom tracking and PASI assessment—scored 3.7. Although slightly lower, this score still demonstrates that recommendations and behavioral cues from others are meaningful in shaping users’ interactions with the platform. Finally, SI1, which examines the broader societal belief that PsoriaBuddy is useful for psoriasis management, received the lowest score of 3.5. While this score is categorized as “Moderately Agree,” it points to an opportunity to strengthen public awareness and societal endorsement of the platform. Overall, the data shows that social influence plays a meaningful role in encouraging PsoriaBuddy usage, with peer support and encouragement from trusted individuals standing out as particularly impactful factors. The relatively consistent standard deviation values, ranging from 0.60 to 0.83, indicate some variability in responses but still reflect a general consensus among users. By leveraging these insights, PsoriaBuddy can focus on creating a community-driven approach to further enhance its appeal and encourage broader adoption.

Table 10. User’s Mean and Standard Deviation of Social Influence

Construct	Measurement Instrument	Mean	Standard Deviation	Descriptive Level
SI1	People who matter to me believe I should use PsoriaBuddy for better psoriasis management.	3.5	0.81	Moderately Agree
SI2	People who influence my behavior believe I should utilize PsoriaBuddy’s features, such as symptom tracking and PASI assessments.	3.7	0.90	Agree
SI3	If others with psoriasis use PsoriaBuddy, I will also see value in using it.	4.2	0.60	Agree
SI4	Overall, the people important to me encouraged me to use PsoriaBuddy	3.9	0.83	Agree
Overall		3.83	0.79	Agree

Table 11 highlights the facilitating condition (FC) of the PsoriaBuddy web application based on user feedback. Similarly, facilitating Conditions play a vital role in ensuring users can effectively utilize the PsoriaBuddy application for symptom management and consultations. The data indicates that most users feel equipped with the necessary tools and resources to use the application, though there is room for improvement. Specifically, the mean score for this aspect (FC1) was 3.5, with a standard deviation of 0.67. This score reflects a "Moderately Agree" descriptive level, suggesting that while many users feel confident in their ability to leverage the application, some may still lack certain resources or tools to maximize its potential. Another key aspect is familiarity with the platform (FC2), which scored a mean of 3.9 with a standard deviation of 0.70. This result indicates that users generally agree they are familiar enough with PsoriaBuddy’s features, such as the PASI tool and experience tracking, to use them effectively. This familiarity reflects positively on the application’s usability and the clarity of its features. Additionally, PsoriaBuddy’s seamless integration with users’ existing technologies (FC3) scored a mean of 4.0, with a standard deviation of 0.77. This high score highlights users’ appreciation for the application’s convenience and accessibility, making it easier for them to integrate it into their daily routines. However, an area that warrants attention is the ease of seeking support when encountering difficulties (FC4). This factor scored a mean of 3.0 with a standard deviation of 1.00, reflecting a "Neutral" level. This suggests that while some users might find it easy to seek help or guidance, others may struggle, potentially due to limited support channels or unclear instructions. Improving user support mechanisms could enhance the overall experience and confidence in the platform. Overall, the facilitating conditions received an average score of 3.6, which falls under the "Agree" category. While PsoriaBuddy effectively integrates with users’ technologies and provides accessible features, the feedback underscores the importance of addressing support-related challenges to ensure a smoother experience for all users.

Table 11. User’s Mean and Standard Deviation of Facilitating Condition

Construct	Measurement Instrument	Mean	Standard Deviation	Descriptive Level
FC1	I have the necessary resources and tools to effectively use PsoriaBuddy for symptom management and consultations.	3.5	0.67	Moderately Agree
FC2	I am familiar enough with PsoriaBuddy to leverage its features, such as the PASI tool and experience tracking.	3.9	0.70	Agree
FC3	PsoriaBuddy integrates seamlessly with the technologies I already use, making it convenient to access its features.	4.0	0.77	Agree
FC4	When I encounter difficulties using PsoriaBuddy, I can readily seek help or guidance.	3.0	1.00	Moderately Agree
Overall		3.6	0.80	Agree

Table 12 highlights the behavioral intention (BI) of the PsoriaBuddy web application based on user feedback. Behavioral Intention reflects users’ plans to continue engaging with the PsoriaBuddy application for various aspects of psoriasis management. The data highlights strong intentions to use the platform, particularly for accessing educational resources and tracking symptoms. The first construct (BI1) received the highest mean score of 4.2, with a standard deviation of 0.60, corresponding to a "Strongly Agree" descriptive level. This result shows that users highly value PsoriaBuddy’s educational tools and plan to utilize them actively in the coming months. The consistent ratings suggest a shared perception of the platform’s importance in providing critical knowledge. In terms of scheduling consultations and assessing symptom severity (BI2), users scored a mean of 3.9, with a standard deviation of 0.70, aligning with the "Agree" level. This indicates that users recognize the application’s potential to simplify consultations and symptom tracking. It reflects the trust users have in PsoriaBuddy’s features to support their healthcare needs effectively. For consistent management of psoriasis over time (BI3), the mean score was slightly lower at 3.6, with a standard deviation of 0.92. This score also falls under the "Agree" category but shows more variability in user responses. Some users may have hesitations about relying on the application long-term, possibly due to personal preferences or concerns about the comprehensiveness of its tools. Lastly, the general intention to use PsoriaBuddy regularly (BI4) scored a mean of 3.7, with a standard deviation of 0.64, again reflecting agreement among users. This score highlights the platform’s perceived value in enhancing the overall psoriasis treatment experience. Users seem inclined to incorporate PsoriaBuddy into their regular routines to maintain symptom control and treatment consistency. Overall, the behavioral intention constructs averaged a mean score of 3.85 with a

standard deviation of 0.72, suggesting a strong and positive inclination to use PsoriaBuddy. The results indicate that users appreciate the platform's features, especially for educational purposes, but also reveal areas where consistency in user engagement could be strengthened, particularly regarding long-term reliance.

Table 12. User's Mean and Standard Deviation of Behavioral Intention

Construct	Measurement Instrument	Mean	Standard Deviation	Descriptive Level
BI1	I intend to use PsoriaBuddy to access educational resources and track symptoms in the coming months.	4.2	0.60	Agree
BI2	I anticipate scheduling consultations and assessing symptom severity using PsoriaBuddy soon.	3.9	0.70	Agree
BI3	I plan to rely on PsoriaBuddy to manage my psoriasis consistently over time.	3.6	0.92	Agree
BI4	In general, I intend to utilize PsoriaBuddy regularly to enhance my psoriasis treatment experience.	3.7	0.64	Agree
	Overall	3.85	0.72	Agree

CONCLUSION AND RECOMMENDATION

Conclusion

PsoriaBuddy, a web-based application, was successfully developed to provide essential educational resources and tools for individuals with psoriasis, aiding them in managing their condition. This platform addresses the need for accessible and comprehensive support for people living with psoriasis by offering features that promote understanding, tracking, and professional care.

This study concludes that PsoriaBuddy, a web-based app optimized for providing support and resources to individuals with psoriasis, aligned with the research objectives:

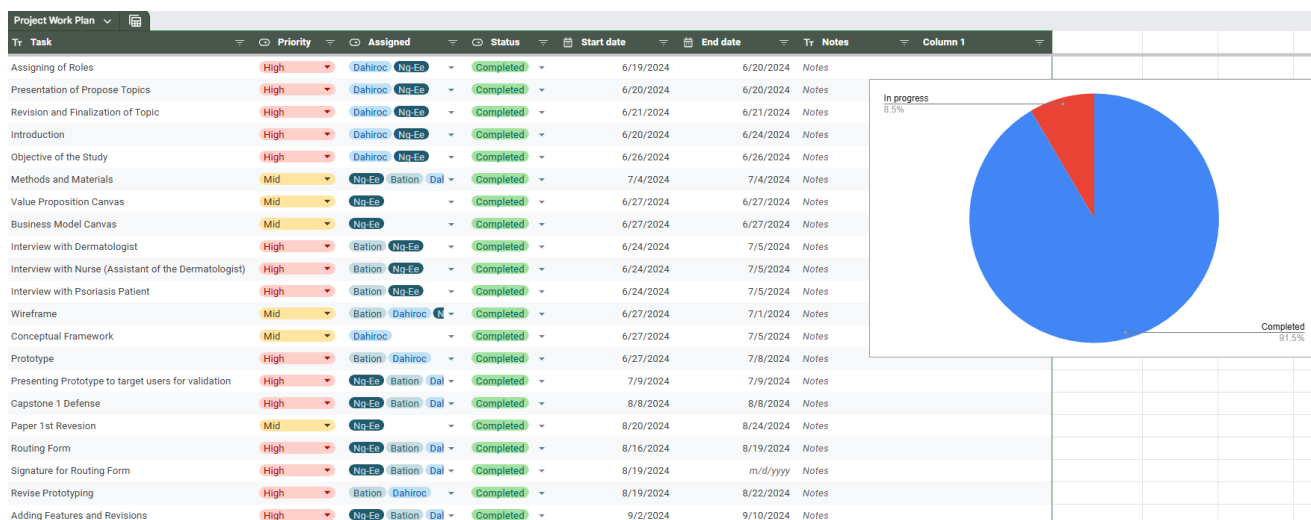
- 1) Provides educational resources with essential information about psoriasis and its symptom management.
- 2) Enables users to document their experiences, track symptoms, and identify triggers effectively.
- 3) Facilitates access to professional care by allowing users to schedule consultations with dermatologists.
- 4) Integrates the Psoriasis Area and Severity Index (PASI) tool, empowering users to assess the severity of their symptoms.

Recommendation

These are the following recommendations that the researchers and respondents suggested to further improve the application's usability and functionality:

- Enhance the educational materials by incorporating a dynamic updating system to ensure content remains current and relevant.
- Add additional login methods, such as integration with Facebook, Apple, and Microsoft accounts, to provide users with more options for accessing the platform.
- Implement a feature that allows users to attach and upload files, including images, PDFs, and other formats, for better documentation and sharing capabilities.
- Introduce a dedicated "Upload/Attach Files" button for streamlined file handling.
- Develop a "Generate Meeting Link" button to facilitate the scheduling of virtual consultations or meetings.
- Enable video page integration with the generated meeting link to support seamless virtual interactions.

Figure 4: Work Plan



23	Banner FrameWork	Mid	No-Ee	Completed	9/2/2024	9/8/2024	Notes
24	Home Page UI	Mid	Dahiroc	Completed	9/10/2024	9/13/2024	Notes
25	Login page UI	Mid	Bation	Completed	9/10/2024	9/16/2024	Notes
26	Sign Up Page UI	Mid	Bation	Completed	9/10/2024	9/16/2024	Notes
27	Forgot Password Page UI	Mid	Bation	Completed	9/10/2024	9/12/2024	Notes
28	Request for REC requirements	High	No-Ee	Completed	9/10/2024	9/13/2024	Notes
29	OTP Verification Page UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
30	Admin Create User Homepage UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
31	Admin Create User Modal UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
32	Admin Created User UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
33	Admin Added New User UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
34	Admin Deleted User UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
35	Profile Page User ui	Mid	Dahiroc	Completed	9/20/2024	10/23/2024	Notes
36	My Experience Page UI	Mid	Dahiroc	Completed	9/20/2024	10/23/2024	Notes
37	Appointment Page UI	Mid	Dahiroc	Completed	9/20/2024	10/23/2024	Notes
38	video Call Page ui	Mid	Dahiroc	Completed	9/20/2024	10/23/2024	Notes
39	Profile Page Dermatologist side UI	Mid	Bation	Completed	9/20/2024	10/23/2024	Notes
40	Appointment Page Dermatologist Side UI	Mid	Bation	Completed	9/17/2024	9/20/2024	Notes
41
My Experience Back-End	High	Dahiroc	Completed	10/19/2024	10/28/2024	Notes	
Appointment Back-End	High	Dahiroc	Completed	10/19/2024	10/28/2024	Notes	
Paper 2nd Reversion	High	No-Ee	Completed	10/15/2024	10/22/2024	Notes	
Verifying User using OTP Code	High	Dahiroc	Completed	10/26/2024	11/5/2024	Notes	
Paper 3rd Revision	High	No-Ee	Completed	11/19/2024	m/d/yyyy	Notes	
Video Call Feature Back-end	High	Dahiroc	In progress	11/25/2024	m/d/yyyy	Notes	
Creation of Events/Notification	High	Dahiroc	Completed	11/25/2024	12/3/2024	Notes	
Final paper	High	No-Ee	In progress	11/28/2024	m/d/yyyy	Notes	
Final checking for system	High	No-Ee Bation Dal	In progress	11/28/2024	m/d/yyyy	Notes	
Looking or participants	High	Bation No-Ee	In progress	11/18/2024	m/d/yyyy	Notes	
Testing of system to Participants'	High	Bation No-Ee	In progress	11/29/2024	m/d/yyyy	Notes	
Final defense	High	No-Ee Bation Dal	In progress	12/2/2024	m/d/yyyy	Notes	

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