Attitudes Toward Health and Communication in Depressed Older Adults

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ABSTRACT

Geriatric depression (GD) entails unique challenges that result from the complex interplay of issues specific to either the aging or depressed, such as cognitive error and health anxiety. We conducted an interview study to assess issues encountered by depressed older adults in communication and perception of their conditions, and explore how personal tracking could mitigate such issues. Our results identify how patients' behavior and communication of their condition with others are impacted by their biases, informing how GD-specialized monitoring can be designed to facilitate recovery.

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Table 1: The demography of patients

ID	Age	Gender	Age of first time diagnosis
P1	74	F	54
P2	74	F	58
P3	66	F	53
P4	73	F	53
P5	65	F	45
P6	67	F	50
P7	68	F	42
P8	71	F	39
Avg	68.60	-	49.25

Table 2: The demography of family members

ID	Age	Gender	Relationship
F1	81	M	Partner of P1
F2	41	F	Daughter of P2
F4	45	F	Daughter of P4
F5	29	F	Daughter of P5
F8	71	M	Partner of P8
Avg	49.00	–	

INTRODUCTION

Geriatric depression (GD), or depression in adults aged 65 years or older, significantly decreases older adults' quality of life and is often under-diagnosed and under-treated [4]. Personal monitoring and communication of mental/physical health are important to track depressives' status, which allows understanding of changes in patients' conditions and improves their emotional self-awareness [3, 6, 7]. These goals are difficult to achieve for depressed older adults, who are less likely to endorse affective symptoms, have more complex physical symptoms, and are subject to increased cognitive error [4, 5]. Previous HCI work on GD has focused primarily on the design of interactive and assistive technology such as social robots or games to raise companionship and engagement for GD patients [8, 10]. However, a need for investigating effective personal monitoring of the depressed aging population is demonstrated by magnification in biases that may obstruct effective communication and diagnosis.

Biased representation of emotional/physical states in GD patients is exacerbated by factors from both depression and aging. Past work on how older adults interact and share information with their family has found that they perform "impression management" to maintain a positive image and avoid risks of negative social consequences, such as stigma of chronic pain [1, 11]. Depressives also suffer from mental illness stigma [12]. General physical and cognitive functional decline in older adults increases anxiety and negative perceptions about their health [5]. These above issues are further heightened by the prevalence of negative bias and overgeneralization in depression [9].

These impacts of GD patients' bias on perceptions, communication, and behaviors show that care-providers or patients may benefit from a more reliable information source through steady tracking of health states. We propose that personal tracking can support GD patients' communication with others and obtain emotional and professional support. Given the gaps in the literature and technology design, this study explores the research question: *How do depressed older adults (1) perceive monitoring of their mental/physical health and (2) communicate such information with family and doctors?*

METHOD

We conducted an in-depth interview with GD patients and/or their key family members to understand their communication habits and thoughts on personal tracking of GD-relevant data. We recruited and interviewed 8 GD patients (see Table 1) aged 65-74 years (M= 68.60 years; SD = 3.36) from Taipei City Psychiatric Center (TCPC) and 5 family members (see Table 2) aged 29-81 years (M= 49.00 years; SD = 22.39). All patients' first-time depression diagnosis occurred between ages 39~58. We also recruited two psychiatrists (D1 and D2) from TCPC, with over nine years of experience in treating GD patients.

Interview questions included: (1) patients' understanding of their depression, (2) their communication with people in their social networks, and (3) their thoughts on monitoring emotional/health information. Each participant (patient or family member) was reimbursed with NTD 250 (~USD 16.5).

We manually transcribed audio recordings of the semi-structured interviews to identify major themes based on thematic analysis [2]. Salient themes are identified in the following section.

PRELIMINARY RESULTS

Our findings indicated that GD patients are inclined to bias in their selective absorption of information, as well as their behavior and reporting of it. This causes difficulty for family and doctors to engage in recovery-constructive communication. Below are the behavioral patterns and factors we identified:

Inconsistent and polarized representations of conditions

We saw that GD patients tended to present information or behave in a polarized, inconsistent manner: either downplaying or emphasizing. Downplaying involves overly general descriptions or a lack of disclosure due to a desire for independence. When asked about sharing data about her condition with her kids, P2 said *"I don't want to, as they will scold or boss me around… I'm very independent… "* F4 stated, *"[P4] doesn't tell us very often about her condition; she won't if she feels like she can handle it herself."* Participants may also emphasize negative symptoms, which can be augmented in GD due to cognitive distortion and anxiety about aging health [5, 9]. P7 recalled, *"That fall was terrifying … The doctor said 'Your head is fine, don't think about it,' but I still think it was really bad."*

Overall inconsistency in patients' communication and perception of symptoms makes it hard for those around the patients to confirm information. P6 mentioned, *"Whether or not I've taken sleep aids, I usually forget after taking them, and sometimes I take too many… only when I forget though, generally I don't take too many."* The psychiatrists (e.g., D1) mentioned this issue: *"I think that having objective data is important for a better understanding. Sometimes the patient will have a mentality that they slept poorly when the sleep quality was actually ok."* Below, we investigate social and individual factors that may contribute to such polarization and inconsistency in patients' behavior.

Social and individual contributing factors

Individual factors: Uneven distribution of confidence in self and others. Patients were often more confident in their own intuition than in external resources, such as recorded data, observations or support from family and friends, or even psychiatrists' suggestions. On keeping a record of sleep condition to help doctors plan treatment, P8 said, *"I don't want to... [Because you already know your sleep situation?] I know I sleep very deeply. [What about when you slept poorly, do you think this record would be helpful to you?] I just couldn't sleep at all - what is there to measure? There's no use measuring that."*

P3 preferred talking to a counselor for emotional support: *"Sure, talking to my friends might feel more down to earth, but still not quite like with professionals."* Emotional support from peers is likely more sustainable and scalable than that from professionals (e.g. doctors or counselors), due to a lack of long-term care for GD by professionals and higher availability of support from a larger social network. Yet, most interviewees expressed more confidence in professionals, even for emotional support.

In spite of this confidence in experts, many interviewees adjusted medication on their own without feeling the need to consult doctors, and only accepted medical opinions in line with their own preconceptions. Hence, participants' confidence in experts may not be consistent with leveraging of experts' support. P3 said, *" I generally take the medication, unless I feel a bit better and think I can sleep without it… I thought I didn't need it, but it got bad again so then I had to go back to [the doctor]."*

Social factors: Diverse consequences of stigma. In line with prior literature, we found that our participants may be concerned about mental health stigma, and less willing to communicate openly about depression. Our data showed that this could be linked to impression management. F2 noticed that her mom fears others knowing about her depression because it is a mental illness: *"She warns us 'Don't let other people know we're taking antidepressants' when we go to pick up medication."*

Our psychiatrist participants described that GD patients were less willing to accept the mental symptoms of depression, compared with physical ones: *"Many patients will say that they don't have depression, only sleep problems… They also have erroneous perceptions to rationalize not taking antidepressants, given these changes are not so direct."* - D1 They also expressed that older adults were less accustomed to sharing emotions or framing information from a subjective stance, which causes communication barriers for doctors and thwarts the effective use of behavioral treatment. D2 described, *"It's more difficult for [older adults] to explain their feelings, so we can only ask about more objective signs, like sleep or appetite… they're also less accepting of behavioral treatment methods."* D1 added that *"sometimes they can't accept the term 'depression', so when talking to them we refer to it as dysautonomia or insomnia."* We observed this in P8, who saw scientific jargon as indicating legitimacy, declaring, *"I have dysautonomia, which is three times more painful than depression; this is from a science report."*

DISCUSSION

Our study extends existing work by identifying socio-individual factors influencing GD patients' biases, polarizing judgments about their depression. We propose that personal health information tracking may raise patients' self-awareness and assist health providers' understanding of patients' conditions by concretizing previously self-reported information about depression. GD symptoms can then be more effectively communicated to others and enable assessment of patients' actual situations.

An interface that integrates mental/physical health data could benefit depressed older adults if it clearly conveys patterns within and between data types, and enables patient-regulated sharing of data with family and doctors. Enhanced bias awareness could be facilitated by prompting patients to anticipate patterns in the data prior to observing the actual patterns. Physical data (sleep condition or physical activity) can be tracked by wearable sensors, while mood information can be self-reported.

Future work will extend the sample size and examine more underlying components of patients' behaviors to inform design. We will also explore how depressed older adults may respond to different methods of health data presentation and communication with others.

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