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The motivations and characteristics of seeking reassurance in health anxiety: A qualitative study of Japanese samples

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SUMMARY

Reassurance seeking (RS) is a common feature of health anxiety (HA). RS maintains their anxiety and results in unnecessary use of medical services. Thus, understanding HA more in depth and finding the key of treatment are still crucial. The aim of this study was to provide a detailed description of RS in HA. Semi-structured interviews were conducted with 10 individuals with HA and the ways in which they seek reassurance, and the consequences of these actions on themselves and their relatives were explored. Interviews were recorded, transcribed, and then analyzed using thematic analysis. The results suggest that the motivations of RS in HA was mainly to obtain certainty about their health, and secondarily to gain emotional support from medical professionals. There are three overarching themes: 'Multiple motivations for RS', 'Reliance on professional opinions', 'Little hesitation in RS'. Also it was revealed not only that they feel little hesitation in RS at medical settings, but that RS in HA cause few interpersonal problems. In addition, there is a unique situation that Japanese health insurance system contributes to it. A better understanding of RS has great potential to improve the treatment of HA and to reduce unnecessary medical expenses. We suggest to think of HA as an anxiety disorder and treat it with proper medication and psychotherapy such as cognitive-behavioral therapy.

Key words: health anxiety, hypochondriasis, reassurance seeking, qualitative study, thematic analysis

I . Introduction

Health anxiety (HA), also known as hypochondriasis, is characterized by the conviction having a serious illness or the fear of its development, based on

a misinterpretation of bodily symptoms. It is estimated that somatizing patients use approximately twice the amount of medical resources, with twice the annual medical care expenses, compared to non-somatizing patients[1]. Some reviews, clinical trials and meta-analyses conclude that the clinical evidence appears strongest for cognitive and behavioral approaches[2-4].

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Abbreviations: HA; health anxiety, IMHA; Interpersonal Model of Health Anxiety, RS; reassurance seeking, SHAI; Short Health Anxiety Inventory

In addition, it is explained that successful treatment of HA reduces medical care expenses[5]. However, it is still assumed that HA is difficult to treat and the comparative effectiveness of different interventions is unknown[2]. Thus, understanding HA more in depth and finding the key of treatment are still crucial.

The newly published DSM-5 replaces the diagnosis of hypochondriasis with that of “illness anxiety disorder.” Some researchers have advocated that HA is treatable if it is dealt with as a condition caused by anxiety[6,7]. Indeed, the cognitive-behavioral model for HA proposes that individuals with HA tend to misinterpret bodily sensation as evidence of being at risk of serious physical illnesses[6,8]. This tendency emerges particularly when the cause of bodily sensation (which makes them feel “something might be wrong”) is unknown.

Since individuals with HA are anxious about their health, they seek reassurance for their health concerns through medical consultations, self-checking, asking their family questions, and searching for reassuring information on the Internet to cope with their anxiety (e.g., asking, “Do you think that I have a disease?” or “Isn’t it a symptom of cancer?”) [9]. However, there is still little agreement among researchers and/or clinicians about the function of RS in HA.

RS is a common in individuals who is suffering from anxiety, particularly among individuals with obsessive-compulsive disorder (OCD), generalized anxiety disorder (GAD), and HA[7,10,11]. Within the context of these disorders, RS may be more broadly defined as the repeated solicitation of safety-related information from others about a threatening object, situation or interpersonal characteristic, despite having already received this information.[12] Rachman (2002) proposes that excessive reassurance-seeking, compulsive checking, and other forms of OCD-related neutralization behavior can all be construed as anxiety-reduction techniques aimed at exerting influence over negative outcomes (i.e., reducing “threat”), and reducing one’s perceived responsibility for such outcomes. However, similar to effects observed in compulsive checking, the hypothesized reductions in anxiety and perceived

responsibility that follow repeated reassurance are thought to be temporary[13]. Cognitive behavioral models explain how RS functions in individuals with HA. This behavior interferes with the acquisition of medical information that could disconfirm their beliefs, and makes them less aware of accurate information [14,15]. Catastrophic misinterpretation of their symptoms occurs more frequently when individuals have concerns about their health condition[16,17], or when they seek reassurance by means of eye-catching resources (e.g., health-related TV programs, searching the Internet). In contrast, the Interpersonal Model of Health Anxiety (IMHA) proposes that an insecure attachment style is activated during times of threat-in this case, perceived ill health-initiating the need to seek support from others to maintain interpersonal closeness and manage responses to stress[18,19]. The IMHA also describes the way such attachment styles maintain health-related concerns. However, recent work by Birnie et al[17]., which tested a number of hypotheses based on IMHA, failed to demonstrate that anxious attachment is related to health-related RS.

In this study, semi-structured interviews, along with psychological measure for HA, were administered on Japanese participants to gain a detailed description of RS, especially aiming to examine how individuals understand, seek, and experience the effects of reassurance, and what motivates them to seek it. The study utilized thematic analysis, a dynamic research method which allows a more in-depth understanding of the phenomenon of interest, informing theory development, and strengthening live data of clinical practice[6].

II. Materials and Methods

Participants

Ten participants (five male and five female) over the age of 40 who had been diagnosed as hypochondriasis by physicians were recruited from Chiba Aoba Municipal Hospital, Japan. We included patients with hypochondriasis because HA is still obscure at local clinical settings in Japan. At the study

intake, all participants were recruited by invitation and confirmed by M.O. as meeting the criteria for hypochondriasis using the Structured Clinical Interview for DSM-IV[21]. About 14 participants recruited but only 10 participants satisfied the criteria. Exclusion criteria for the participants included the presence of any other current and lifetime Axis I mood or psychiatric disorder so that we could examine RS only related to HA. The presence of any physical disease did not exclude participation. Though this study was conducted before the publication of DSM-5, we checked that the participants met the criteria for illness anxiety disorder as defined in DSM-5 soon after its publication. Informed written consent was obtained from all study participants. The protocol of this study was approved by the institutional review boards of Chiba Aoba Municipal Hospital.

Psychological measure

All participants completed the Short Health Anxiety Inventory SHAI:[22,23]. The SHAI is a short version of the Health Anxiety Inventory, and it has comparable properties to the full length scale. A score of ≥ 18 is often used as a clinical cut-off[9].

Design and Interview Guide

Thematic analysis was performed, along with careful evaluation of transcripts from interviews of individuals with HA. The lead psychiatrist (M.O.) conducted 30 minutes semi-structured interviews with each participant at Chiba Aoba Municipal Hospital. The interview questions dealt with four main themes: "Identification of the participant's outlook on reassurance," "Determination of the motivations to seek reassurance," "Consequences of reassurance on emotional state and relationships," and "Exploration of subtle RS." Throughout the interviews, participants were allowed to ask for clarification if they did not understand the questions. Table 1 shows the major topics explored in the semi-structured interviews and sample questions including a uniform opening.

Qualitative analysis

Audio-recordings of the interviews were transcribed verbatim, and the data sets were analyzed using theoretical thematic analysis. Thematic analysis is a useful method for working within a participatory research paradigm; it can summarize key features of a large body of data, and offer a "thick description" of the data set. It also enables the highlighting of similarities and differences across them, can generate unanticipated insights, allows for social as well as psychological interpretations of data, and is useful for informing policy development in qualitative studies[24].

Multiple steps were involved in the analysis. First, each interview transcript was read by a single assessor (M.O.), who noted meanings and patterns within the responses that seemed to be related to RS. Second, the interview transcripts were reread and coded by a 2nd-author (O.K), with full and equal attention given to each idea. In the coding, an initial list of ideas about the patterns in the data, and what they might signify was generated. Codes identify a feature of the data that appears interesting to the assessor, and refer to "the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon"[25]. Third, codes were assigned to all features highlighted during the initial readings. Coded data and their interrelationships were carefully considered to generate overarching themes. Themes were then compared, and either deconstructed to capture different nuances, or combined according to their commonalities by M.O. and O.K. This differentiation and merging of themes allowed the development of an analytic hierarchy in which abstract, overarching themes were identified. These overarching themes were composed of sub-themes that were in turn descriptively close to the verbatim data.

The process of analysis required recursive movement back and forth between transcription, extraction, and theme development, to ensure that any identified thematic structure was grounded in the original transcripts. Overarching themes were determined by their relevance to theory development and prevalence (present in more than 80% of the transcripts). Sub-

Table 1 Sample questions of interview

Identification of the participant's outlook on reassurance
What kind of things do you do when you seek something that will relieve you?
Do you think it is a good thing or a bad thing? Why do you think so?
Do you feel that you want someone to relieve the stress when you are anxious?
From whom do you seek relief and under what circumstances?
Does that happen often to you? How often?
How do your family members or your doctor respond if you talk about your health?
Do you come near to him/her and try to check the small nuances in their words or facial expressions?
Can you guess what they say before you ask? If Yes, why do you ask?
Do you feel relieved once you have heard or considered their opinion?
Do you seek relief from another person? Is it often?
Do you have something that you want other people to do or not to do?
What leads you to start seeking something that will relieve you?
What is the trigger?
Determination of the motivations to seek reassurance
For what do you seek something to relieve you?
Why do you seek it from others? What is the consequence to your peace of mind?
What makes you feel most relieved? What is the reason?
Do you consult specialists other than your family doctor?
Is there any relationship between your search for something that will relieve you and your sense of responsibility?
Is there any relationship between your search for something that will relieve you and your feeling of seeking a better treatment?
Is there any relationship between your search for something that will relieve you and your feeling that you want to receive the best care?
How does your search for something that will relieve you end?
How do your feelings change once you are relieved?
How long does your relief continue?
Consequences of reassurance on emotional state and relationships
Do you feel sorry for your family or your family doctor when you ask them questions?
Does your family or doctor get angry or annoyed when you ask them questions?
Do you compensate for your tendency to seek something to relieve you?
Do you apologize unnecessarily or bring them a gift to make them feel better?
Do you think your family should help you as a matter of course?
Is there anything you do to reduce your family's burden?
Exploration of subtle reassurance seeking
Do you try to seek your peace of mind without being noticed by your family or doctor? (E.g., Asking "Do I need to have an exam?" "I think I'm O.K. but it hurts here..." or rubbing the part where it hurts in front of your doctor).
Do you do things to relieve yourself? (E.g., self-checking of your pulse, touching where it hurts, comparing it to yesterday, or asking someone "Is this usual? Yes?").
Do you try to do subtle things like seeking relief via the Internet, TV, "family medicine" books, or something like that?

themes were determined by reading all collated extracts to ensure that themes and the thematic map worked in relation to the extracts.

After the procedure described above was completed, an audit of the themes was conducted. O.K. went over the raw transcripts, coded data, the matrix of codes, and the first draft of the results in order to check the fidelity

of the process and interpretations. Disagreements between the two researchers were resolved through discussions, with priority given to M.O., who interviewed the participants. Transcripts were then rechecked to test whether the thematic map worked against the transcripts.

III. Results

Participant characteristics are summarized in Table 2. The mean age of the participants (five men and five women) was 58.6 ± 12.22 (mean \pm SD). The mean score of SHAI was 29.2 ± 7.48 which is equivalent to previous research[26]. Three overarching themes were identified from the interview transcripts: “Multiple motivations for RS,” “Reliance on professional opinions,” and “Little hesitation in RS.” The next section describes each overarching theme, followed immediately by its sub-themes, with specific examples from the transcripts.

Multiple motivations for RS

This overarching theme described participants’ perception of the function of reassurance in terms of their awareness of subjective reasons for RS. We found that the motivations for RS were related not only to perceived threat, but also to interpersonal relationships.

Pursuit of certainty

Four participants still sought further reassurance from different physicians.

Participant 2: *Even when I went to the hospital and was told “Nothing’s wrong” just as before, I felt anxious when having a headache again. Then, I went to another hospital to request more tests.*

Six participants tried to regularly see the same

physician as a way of “prevention,” even when they did not feel unwell, hoping that their physicians would notice when there was something wrong with their body.

Participant 5: *I see my doctor once a month. I need someone to rely on when I’m uncertain whether I’m entirely well.*

Emotional support seeking

Some participants suggested that they were attempting to elicit emotional support when they sought reassurance. Four out participants indicated that a lack of concern from their family motivated them to visit their physicians.

Participant 9: *My husband doesn’t care about me at all. I want my doctor to listen carefully to my problem.*

Participant 3 indicated that she was unable to elicit emotional support from her family:

Researcher: *How do your family members respond when you talk about your health?*

Participant 3: *My husband says, “There you go again. Everybody’s got a problem, right?” He always gives me that kind of answer. He doesn’t care.*

Participant 2 described how she receives few responses from her family:

My husband just takes me to the hospital. That’s all.

Table 2 Demographic Data of all Participants

Participant	Age	Gender	Years of education	SHAI	Relationship status	Employment status	Comorbidities	Chief complaint
1	68	Male	12	20	Dating	Retired	Pulmonary disease	Numbness of feet
2	40	Female	12	34	Dating	Paid work	Not known	Headache
3	47	Female	*	28	Married	Unemployed	High blood pressure, Asthma	Fatigue
4	51	Male	16	45	Married	Paid work	High blood pressure, Back pain	Back pain
5	44	Male	16	21	Single	Paid work	Not known	Headache
6	61	Male	9	22	Married	Retired	Not known	Numbness of fingers
7	74	Female	16	31	Married	Housewife	Glaucoma	Fatigue
8	62	Female	12	33	Married	Unpaid work	Prostatic hyperplasia	Stomach discomfort
9	67	Female	12	27	Married	Housewife	Diabetes	Fatigue
10	72	Male	12	31	Married	Retired	Gastritis	Stomach discomfort

*Participant declined to provide this information

SHAI: Short Health Anxiety Inventory

Reliance on professional opinions

Participants seem to have a limited range of resources and strategies with RS; they seek reassurance rather from clinical specialists and medical examinations than their family.

Specialist providers

Participants thought that only specialists would be able to correctly identify problems with their health or perceive problems that patients were not even aware existed.

Participant 5: *I feel reassured because my doctor is a professional.*

Participant 8: *I want my doctor to hear my complaints and to tell me in detail about my condition, because I'm not a professional.*

Six participants asked family members, but ended up seeing physicians, because they felt that relatives did not fully understand the problem and, therefore, could not provide informed responses.

Participant 4: *I think it wouldn't be helpful to tell my wife, because she is not a professional.*

Participant 8: *I cannot expect much of my husband because he doesn't put much thought into his answers. That's why I always trust the professional's opinion.*

In addition, six participants tried to seek reassurance in indirect ways. They touched "painful" body parts (e.g., rubbing their arms or legs) hoping that their physician would investigate them. These behaviors often occurred in the presence of a physician.

Participant 3: *I always touch my shoulder or head when I talk to my doctor.*

External reference

Other than specialists, Internet, TV programs, and books were the only sources to provide reassurance. In this study, six participants turned to such external information sources.

Participant 3: *I often do some Internet search about my symptoms to know how many people have the same problems and how long I should endure them.*

Little hesitation in RS

Feeling that it is "reasonable" to seek reassurance in a medical setting

Nine participants thought that they had a valid reason to seek reassurance, and that this behavior was not too "costly." On the contrary, they regarded going to the hospital as "good" for their health.

Participant 4: *I go to see my doctor because I need some advice because I want to understand my condition clearly.*

Their view was reinforced by encouragement from people around them.

Participant 3: *My family members told me it would be better to go to hospital if it's so hard for me. They don't take care of me so much because they think they aren't professionals.*

Moreover, nine participants did not hesitate to visit their physicians. For instance, Participant 4 went to hospital twice a week to see physicians from four different departments during the same short period of time.

Participant 9: *I think it natural to see my doctor when I'm not well. I don't feel sorry. I always say to my doctor, "Please make it better immediately! I can't bear the numbness in my foot!"*

Feeling that RS causes fewer interpersonal problems

As we mentioned above, RS in HA is unique, in that individuals with HA seek reassurance from medical services, rather than from their family. Even if they seek reassurance from their family, the family members help the patients to see their physicians.

Participant 7: *I always ask my husband about my condition. Then he says, "Why don't we go and see your doctor?"*

In addition, participants thought that their family members should help them when they don't feel good.

Participant 6: *I do not feel sorry or apologize to my wife. I think it is a matter of course that my wife helps me when I'm not feeling well.*

IV. Discussion

The main purpose of this study was to obtain a better description of RS in HA. The results suggested that RS in individuals with HA is motivated primarily by the pursuit of certainty about health, and by interpersonal factors such as emotional support. Secondly, it was revealed that they rely more on the opinions of professionals than the opinions from people around them. Thirdly, participants reported little hesitation in RS.

All participants felt uncertain about the cause of their symptoms, as well as the diagnosis, and were struggling to identify appropriate treatment or self-care to improve themselves. Although they seek a second opinion from different specialists, multiple opinions sometimes confused patients. This explains their intolerance of uncertainty[26], pursuit of certainty and why they do RS at medical setting, particularly with medical doctors. Once diagnosis for their uncertain symptoms is established, they can start an appropriate treatment or they could be reassured that no treatment is needed. However, it seems to be difficult for them to live without knowing what they should do. In addition, the eliciting of emotional support is another motivations for RS in HA. This is consistent with IMHA which is relevant to the finding of this study that individuals with HA do not receive emotional support from their family members, which is one of the mediators between medical morbidity and HA[27]. As shown in Table 2, most of their chief complaints were medically unexplained symptoms, such as fatigue, headache, numbness or stomach discomfort, and they were worried what causes those symptoms and how to reduce them. In contrast, the participants did not have significant fears of having or developing serious diseases such as cancer or a heart disease, which might be more relevant to the fears of younger individuals than the participants of the present study.

The second main finding of this study is that participants reported a reliance on the opinions from specialists. RS occurred predominantly at medical settings because individuals with HA have questions that

are difficult to solve without professional knowledge and direct these questions to professionals, primarily their physicians. This explains why individuals with HA presume that only specialists can accommodate their needs for reassurance, and why they end up RS from their physicians, or asking for hospital examinations, to convince themselves that they are healthy.

Outside of medical settings, participants search for health-related information by themselves. On the way of the information search, they may encounter other anxiety-provoking information, especially on the Internet[28].

The third main finding was that inhibitions, such as hesitation or ambivalence in RS, were seldom reported.

Social and cultural factors, such as the national health care structure, may play a role in the frequency of use of medical resources which presumably reflect lack of hesitation. Since 1961, Japan has provided a universal health insurance system funded by national insurance contributions, which affords citizens 70% coverage. Additionally, as all citizens are allowed to attend any hospital or clinic without a referral letter, consultations are not restricted to local clinics; this facilitates the practice of “doctor-shopping.” These results are in accord with previous findings that excessive RS contributes to unnecessary health expenses[7]. This may be one of the reasons that such individuals feel confused when they advised differently from each physicians and when it is recommended that they see a mental health professional. Compared to another developed countries, this is more obvious in Japan. For instance, in U.S. or Australia, medical cost is more expensive which may prevent “doctor-shopping”. In the U.K., people only could see physicians that they registered with. However, english-speaking people can seek medical information on the Internet, and this is not limited to the website of their countries. Future studies need to address which websites they look depending on their language.

It has also been suggested that individuals with HA experience fewer interpersonal conflicts. For their family, encouraging an individual with HA to go to a clinic seems to be the “right thing” to do, because they

are not professionals and cannot answer questions about health conditions. This may result in fewer interpersonal problems between individuals with HA and their family members, but family members may miss opportunities to listen to the complaints of individuals with HA when they are looking for emotional support.

We had a relatively small number of participants since we recruited from only one hospital and individuals with HA tend to see a primary care doctor not a psychiatrist. A similar future study is needed with a larger sample of participants. As there are limitations associated with this type of qualitative methodology, there may well be discrepancies between participant narratives and actual RS behavior. However, thematic analysis recognizes input from both the participants being interviewed and the researchers who conduct the analysis. Therefore, these findings represent an in-depth exploration of RS, which will hopefully inform future quantitative studies.

V. Conclusions

The results suggest that individuals with HA seek certainty about their health and emotional support at medical settings. It is important to assess emotional and social support they perceive from people around them, and to provide psycho-education to the people about how providing emotional support may help the sufferer.

There are three overarching themes: 'Multiple motivations for RS', 'Reliance on professional opinions', 'Little hesitation in RS'. Also it was revealed not only that they feel little hesitation in RS at medical settings, but that RS in HA cause few interpersonal problems. In addition, there is a unique situation that Japanese health insurance system contributes to it.

We also believe that a better understanding of RS would have great potential to improve the treatment of HA and to reduce unnecessary medical expenses. As other researchers have advocated, we suggest to think of HA as an anxiety disorder and treat it with proper medication and psychotherapy such as cognitive-behavioral therapy.

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