

## News Release

**Title** Three key factors for overcoming psychological insulin resistance: a qualitative study in Japanese people with type 2 diabetes.

### Key Points

- Telephone interviews were used to identify factors motivating insulin initiation.
- Health care provider actions can help alleviate reluctance to insulin initiation.
- Participants reported resignation/surrender/acceptance as a reason to commence insulin.

### Summary

Kentaro Okazaki, designate associate professor, and Noriyuki Takahashi, designate assistant professor, at the Department of Education for Community-Oriented Medicine, Nagoya University Graduate School of Medicine, and their colleagues reported on a motivational theme for initiating insulin therapy in Japanese people with type 2 diabetes (PWT2D).

It is known that psychological hurdles are high for PWT2D to initiate insulin injections. In this study, telephone interviews were conducted with six of the Japanese PWT2D participating in a seven-country international collaborative study to understand their thoughts and perceptions before and after starting insulin injections and related factors, and to explore the reasons behind their responses. Interview data were analyzed using a qualitative research method called Steps for Coding and Theorization (SCAT), developed by Professor Emeritus Takashi Otani of the Nagoya University Graduate School of Education and Human Development.

The analysis identified three themes influencing insulin initiation: 1. Advice from a health care provider (HCP) that insulin is an appropriate treatment; 2. Demonstration by HCPs on how to use the insulin pen/needle and the injection process; and 3. Resignation/surrender/acceptance of insulin, where participants felt there was no other choice but to commence insulin. When recommending insulin injections, it became clear that it is important for HCPs to explain the usefulness of insulin and demonstrate and explain the injection procedure based on these three themes. In addition, resignation/surrender/acceptance of insulin was identified as a reason for starting treatment, based on statements such as "Drug therapy isn't effective. I was thinking it (insulin) was the only option left for me." and "When I looked at my blood sugar level, I realized there was no other choice left", which were considered to be themes specific to Japanese PWT2D and worthy of attention.

This study provides important information for HCPs in initiating basal insulin therapy for Japanese PWT2D who are reluctant to start insulin injections.

## Research Background

Type 2 diabetes in Japan is a major health concern and is projected to increase further in the coming decades as the population ages. In addition to lifestyle changes such as diet, exercise, and weight control, the disease is treated with oral and injectable diabetes medications. Type 2 diabetes is progressive, and many patients eventually require insulin injections to maintain glycemic control. Although a high percentage of patients achieve adequate glycemic control with insulin therapy, there is often a delay in initiating treatment. This delay is known as psychological insulin resistance and has been examined in several studies. Psychological insulin resistance has been reported to be due to physician-related factors such as clinical inertia and lack of knowledge about insulin, and patient-related factors such as fear of injections, fear of weight gain and hypoglycemia, misconceptions about the benefits of insulin, and personal feelings of failure.

However, research on effective strategies to support the initiation of insulin therapy is limited, and few studies have described psychological insulin resistance in Japanese people with type 2 diabetes (PWT2D).

## Research Results

Three broad themes emerged as factors that enabled patients who were initially reluctant to start insulin injection to overcome their psychological insulin resistance and begin treatment. (Figure)

### 1. advice from a health care provider that insulin was an appropriate treatment

Advice from a trusted HCP was considered important in the decision to initiate insulin therapy. PWT2D stated that explanations by their HCPs comparing the benefits and potential drawbacks of insulin were effective in their decision to initiate insulin therapy. The trusting relationship between the PWT2D and the HCPs was also important to the patient, as was the HCPs' understanding of the PWT2D's situation and agreement that insulin therapy was optimal. It was also important for the HCP to have a personalized approach and be a good communicator.

### 2. demonstration by HCPs on how to use the insulin pen/needle and the injection process

PWT2D indicated that the injection procedure itself, the stigma associated with insulin injections, and fear of pain were obstacles in their decision to start insulin therapy. Additionally, there is a gap between medical knowledge, awareness and acceptance of the medical condition, and physician understanding at the time of treatment initiation. These gaps contribute to resistance to starting insulin therapy. For PWT2D, education and demonstration of insulin use using actual insulin pens and needles were important and more persuasive than explanations

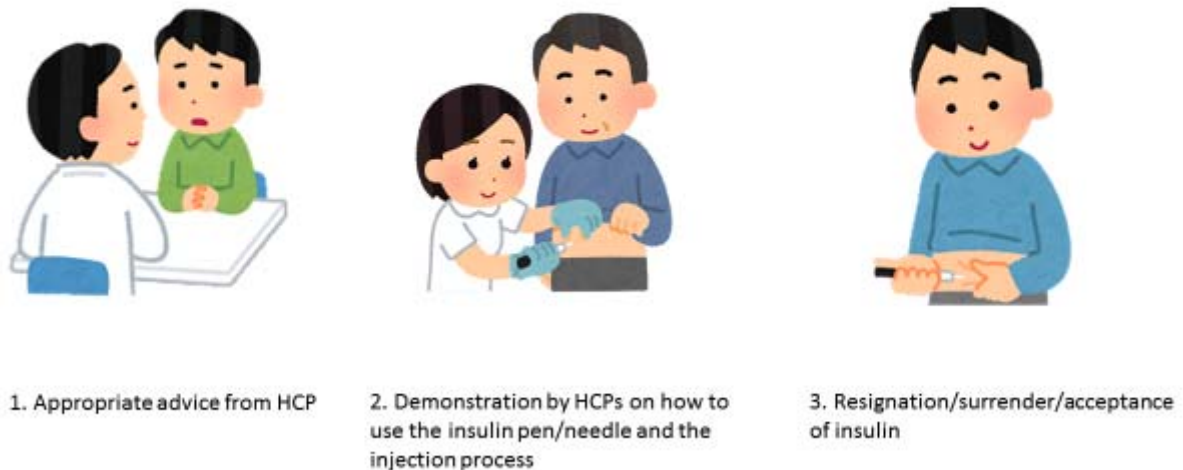
and images, and were effective in alleviating preconceived notions and anxiety about insulin therapy. They also reported that giving their own insulin injections with the support of a HCP was effective.

### 3. resignation/surrender/acceptance of insulin

Four PWT2D stated that they "had to start insulin therapy because other treatment methods did not work" and that they were "prepared to accept insulin injection therapy as the only way to go." This was especially true when the patient's blood glucose level was not well controlled or when the patient's general condition was declining. In addition, changes in lifestyle due to diagnosis of other serious illnesses, for example, sometimes triggered the initiation of insulin therapy. Starting insulin therapy with the support of a physician can be an unexpectedly positive experience.

Resignation, surrender, and acceptance, which in Western culture mean negative and feeble states of mind, have more complex meanings in Eastern cultures and are generally regarded as desirable qualities. Some researchers have described resignation/surrender (called "akirame" in Japan) as a specific form of defense with multilayered psychological and cultural meanings, a culture-specific adaptive defense operation of the ego.

Fig. Three key factors for overcoming psychological insulin resistance



### Research Summary and Future Perspective

We identified information that is important for HCPs in initiating basal insulin therapy for Japanese PWT2D who are reluctant to start insulin injections.

Based on this information, we plan to conduct workshops for HCPs. The workshop will include role-plays of PWT2D with various backgrounds who are hesitant to start insulin injections for various reasons. It is hoped that the HCPs participating in the workshop will be able to improve their communication skills, establish appropriate relationships with their PWT2D, and optimize their involvement.

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