

## **Exploring Recovery Through Life Narratives in Psychiatric Home-Visit Nursing: A Natural Language**

### **Processing Approach Using BERTopic**

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**Supplementary Materials (S1):** Topic-wise interpretations based on BERTopic

#### **Topic 1: Backchannels**

In Topic 1, many short replies such as “Yeah, none,” “Not at all,” and “Of course” were observed. These expressions aim more to maintain the interaction than to advance the conversation, functioning more as passive responses to the interviewer’s prompts than as vehicles for information. As top terms, semantically loose words such as “edge,” “circle,” and “patrol” were extracted; this likely reflects that adverbs and interjections forming backchannels were excluded during preprocessing, so the occasional nouns appearing between backchannels were captured instead. Based on this, we interpreted the topic as reflecting noninitiated responses without narrative development, and labeled it “Backchannels: noninitiated responses to the interviewer.”

#### **Topic 2: Thinking**

Topic 2 was typified by statements such as “I should get myself together” and “I’d like to keep going like that,” which are introspective yet do not clearly specify targets or purposes. Top terms like “think,” “idea,” and “feelings” suggest the speaker’s mental stance but tend not to develop into concrete actions or articulated

emotions. We thus judged this topic to represent directionless thinking or vague resolve and labeled it

“Thinking: statements with unclear aims.”

### **Topic 3: Physical condition**

Topic 3 contained many remarks related to physical discomfort (e.g., “My body feels worn out,” “I sometimes get tired”), and top terms included negative adjectives such as “impossible,” “bad,” and “no good.” These narratives center on negative expressions focused on physical condition (Table 4: Positive = 1.70%, Negative = 7.19%, P/N = 0.24). Accordingly, we labeled it “Physical condition: mainly about feeling unwell.”

### **Topic 4: Eating**

Top terms included “eat,” “meal,” and “time.” Narratives such as “I try to eat properly here” and “They weigh lunch in grams for me” indicate concrete behaviors and interest regarding food, and there were also references to daily routines and rhythms (e.g., “not being tied to set times,” “I don’t eat in the morning”). We therefore interpreted this as reflecting interest in food and daily routines and labeled it “Eating: interest in food and daily routines.”

### **Topic 5: School**

Top terms included “study,” “high school,” and “school.” Narratives often looked back positively on student days (e.g., “High school was fun,” “I discovered how interesting school could be,” “Junior high was good”),

centering on a sense of achievement and enjoyment in learning and school life. Although some recollections of setbacks appeared (e.g., “I stopped studying partway through high school”), the overall tone was positive (Table 4: Positive = 2.68%, Negative = 0.29%, P/N = 9.34). We therefore labeled it “School: recollections of learning and experiences.”

### **Topic 6: Sleep**

Top terms included “sleep” and “morning.” The narratives mainly concerned sleep-related daily rhythms and subjective bodily sensations, such as “I get up at six and go to bed at ten,” “I sometimes take a nap,” and “There are days I can’t sleep until two.” Because these reflect not only health management, but also day-to-day fluctuations and sensations, we labeled it “Sleep: daily routine and bodily sensations.”

### **Topic 7: Family**

Top terms included “mother,” “father,” and “child.” Narratives addressed family relationships (e.g., “My father was overinvolved,” “My mother may have had a lot going on because of my father,” “My daughter is with the Child Guidance Center”). Although exemplar utterances mentioned conflicts and discord, the overall tilt was only slightly negative (Table 4: Positive = 1.81%, Negative = 1.83%, P/N = 0.99). We interpreted this as reflecting recollections of relationships with parents and family history and labeled it “Family: recollections of parent–child relationships and family history.”

### **Topic 8: Conversation**

Top terms included “listen,” “speak,” and “people.” Narratives described awareness of conversation and changes in interpersonal relations, such as “I realized people approach me more than I thought” and “Once I start talking I can’t stop, so I usually keep quiet.” These included shifts in self-recognition, willingness to talk, and awareness of relating to others. We therefore labeled it “Conversation: awareness of talking and relations with others.”

### **Topic 9: Work**

Top terms included “work,” “task,” and “clerical.” Narratives frequently addressed employment experiences, such as “I’d like to work a bit more,” “I used to have a job,” and “As for work—yes.” We interpreted this as reflecting work experiences and employment-related content, and labeled it “Work: narratives about employment.”

### **Topic 10: Hobbies**

Top terms included “music,” “book,” and “drawing.” Narratives described creative activities and self-learning through hobbies (e.g., “I’m self-taught on the guitar,” “I learn how to play by reading books”). Because these were not merely leisure, but also functioned as means of achievement and self-expression, we labeled it “Hobbies: leisure activities including creative work and learning.”

### **Topic 11: Housework**

Top terms included “cleaning,” “laundry,” and “machine.” Narratives described concrete household behaviors (e.g., “I vacuum and clean the toilet every day,” “I do the laundry but don’t really clean”), while also expressing burden and difficulty (e.g., fixed times, physical effort). Reflecting both maintenance of daily life and its constraints, we labeled it “Housework: routines for daily maintenance and burden.”

### **Topic 12: Hospital**

Top terms included “hospital,” “admission,” and “discharge.” Narratives concerned relationships with medical institutions and their impact (e.g., “I ended up going to a psychiatric hospital,” “I was able to start working after leaving the psychiatric hospital,” “I was hospitalized”). The focus extended beyond medical history to perceived distance to care and its effects on daily life. We thus labeled it “Hospital: engagement with health care and its impact.”