

1 Article

2 Self-Management of Chronic Diseases: Descriptive 3 Phenomenology Study

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8

9 **Abstract:** Chronic diseases are the priorities for the health care system and patient-centered care.
10 Because, chronic diseases could cause a disabling which has impacts physically, socially and
11 psychologically. Chronic diseases needs to ongoing care and support to assist patients' self-
12 management. The aim is to understand the experiences of the treatment of patients with chronic
13 conditions who were able to practice self-management. Within the scope of the phenomenological
14 approach, was carried out in Izmir/Turkey province 10 patients with a chronic disease (e.g.,
15 hypertension, diabetes, arthritis) who attended a family health care center. Three main themes were
16 identified, namely social support, disease management, and self-awareness and empowerment. It
17 was determined that the disease management, self-awareness and empowerment sub-themes
18 (chronic disease definition, perceived barriers, emotional and spiritual state, self-monitoring,
19 dietary and medication management) had a significant effect on the self-management. The results
20 have demonstrated that patients' health outcomes can be affected patients' experiences and
21 behaviors in the chronic conditions self-management. Planning for self-care programs should be
22 provided by health care professionals, taking into account the variables that affect patients' self-
23 management of their disease.

24 **Keywords:** disease management; self-management; chronic disease; qualitative research;
25 phenomenology
26

27 1. Introduction

28 Longer life spans, the increased prevalence of chronic diseases (for example, diabetes,
29 rheumatoid arthritis and coronary heart disease) as well as the increased burden of illness have led
30 to the need for more treatment and care. The health care system has been greatly impacted by major
31 chronic diseases [1] increasing the risk of mortality and morbidity as well as negatively affecting the
32 patients' self-care and quality of life. This situation shows the current, worldwide significance of
33 controlling chronic diseases and implementing disease management programs within communities
34 [1-6]. Success in the control and treatment of chronic diseases involves a self-management approach
35 involving patient-centered decision-making and care. Self-management of a chronic disease is
36 improved by adjusting patients' treatment to ensure that self-care can be carried out at the highest
37 level by the patients themselves. A patient needs to have the specific knowledge to be able effectively
38 manage the disease but also needs to acquire self-care skills (medication management, dietary
39 management, self-testing, self-monitoring, psychological and spiritual states) [1,6,7]. If patients
40 consult their doctor/nurse when necessary, they can participate actively in increasing their
41 knowledge and skills, and also acquire competence in independent decision-making, increase their
42 ability to cope with problems, perform their own follow-ups, and carry out self-management [7].
43 Healthcare providers increasingly recognise the importance managing patients who have chronic
44 diseases; they are also frequently involved in primary care in collaborative arrangements with
45 specialised services [1].

46 Research has discussed the importance of patients being successful in their self-management [2-
47 11]. Jerant et al. [2] carried out qualitative research which found that patients with chronic diseases
48 have difficulties in self-managing, including depression, difficulties losing weight despite dietary
49 programs, difficulties in doing regular physical exercise and aches and pains experienced as a result
50 of disease. In addition, fatigue, inadequate communication with healthcare providers, inadequate
51 social support and economic problems are also barriers to disease management.

52 The problems patients experience during the treatment process and the specific skills required
53 for disease management were investigated using the following question:

54 What are the characteristics of patients' lived experience in the self-management of chronic
55 conditions?

56 The aim of this study is to understand the experiences of the treatment of patients with chronic
57 conditions who were able to practice self-management.

58 2. Materials and Methods

59 The descriptive phenomenological research method was used from qualitative research design
60 [12]. Phenomenological approach widely provides an in-depth perspective to reveal the phenomena,
61 lived experiences, describing human experiences, perceptions and durations [13]. The study was
62 carried out in İzmir (Turkey) province with patients with a chronic disease (e.g., hypertension,
63 diabetes, arthritis) who attended Primary Health Care Services (two Family Health Centers) from
64 February and June 2018. Interviews continued until the data reached the saturation point, and 10
65 participants (P1-10) were interviewed for this research.

66 Participants were selected for the study using the criterion sampling method in two different
67 Family Health Centers and those with at least one chronic disease, such as diabetes, hypertension or
68 rheumatoid arthritis, and those who used medication to treat these were included. Only those who
69 were literate, were in good mental health, could communicate in and understand Turkish
70 participated in the study. Illiterate, mental dexterity and could not communicate individuals were
71 excluded from the study.

72 When selecting of the participants, medical records were guided after contacting registered
73 nursing practitioners from the Family Health Centers, who were informed about the objectives and
74 selection criteria of the study. Subsequently, public health nursing practitioners selected participants
75 and participants were invited to participate in the study and referred to the researcher. The interviews
76 were also observed by the nurse practitioners and the feedback or response continued between the
77 researcher and nurse practitioners throughout the study.

78 The data collection instruments consisted of two parts. The first part contained socio-
79 demographic questions and an information form about the characteristics of the disease; in the second
80 part, a semi-structured interview form was used, consisting of eight problems relating to the process
81 of the chronic disease management which had been formulated using the literature [2,4,8,10,11]. The
82 open-ended questions are to allow to describe the lived experience of the participants. This form
83 contained questions about perceptions of social support related to chronic disease, general health and
84 disease management, barriers arising from the disease, trust, beliefs about the disease, disease
85 information, communication with patients, their skills and abilities, and the management of disease.
86 Prior to data collection, pilot interviews were held with three people for the semi-structured
87 interview form and changes were made to the interview form following these interviews.

88 The face-to-face interviews were held in the Family Health Centers in prepared rooms using in
89 one-to-one interviews last 45 and 60 minutes of qualitative data to explore the experiences of
90 participants. Those agreeing to participate in the study were told that their voices would be recorded
91 on the voice recorder and their verbal permission was obtained. The researcher recorded the
92 interviews by voice recorder and recorded the observations in a notebook. The semi-structured
93 interviews were conducted by the researcher who graduated PhD in Public Health Nursing area and
94 experienced over 10 years in Public Health Nursing. The meetings were held between February and
95 June 2018, and the interviews lasted approximately between 45 and 60 min. The participants expressed
96 in their own words in a dialogue with the researcher. Conversations were recorded on a voice

97 recorder and transcribed verbatim. The interviews were described in detail and direct quotations
 98 were frequently cited. The text comprehensively read two times. Firstly, the meaning identified. In
 99 second reading, categories and themes extracted. The themes and subthemes were clearly identified
 100 and analysed the documents. The documents were uploaded to the NVIVO 8 statistical program and
 101 content analysis was implemented. Documentation was produced approximately 12-14 pages and
 102 the data obtained were converted to a written document within 24 days totaling 1440 minutes (60
 103 hours). All interviews were held in the Family Health Centers.

104 In order to improve the validity and reliability of the study, the criterion sampling method was
 105 deployed [13,15]. Consolidated Criteria for Reporting Qualitative Research guidelines were followed
 106 [14]. The data reliability method consisted of: a) For the analysis of the data was received opinion
 107 independently by three experts (two of them were PhD in Public Health Nursing, one of them was
 108 PhD in Psychiatric Nursing department) as well as the researcher according to Giorgi method [15];
 109 b) 10 randomly selected participants were defined by the registered Family Health Center nurse
 110 practitioners; c) The interviews were also observed by the Family Health Center nurse practitioners.
 111 To confirm the participants' responses, they were asked whether they wished to give any further
 112 information or remove any comments. In accordance with the research questions, a framework is
 113 created in order to help provide a structure to data analysis using the conceptual framework included
 114 in the interview/observation [12,13,15].

115 In order to carry out the work, written permission was received from the Izmir Katip Celebi
 116 University Non-Invasive Research Ethical Committee (IRB No: 31829978-050.01.04-E.1700092115
 117 date: 22.12.2017) and the Provincial Health Directorate in Public Health (IRB No: 77597247-604.02).
 118 Verbal informed consent was obtained from the patients.

119 3. Results

120 The socio-demographic characteristics of the participants and their histories of disease were first
 121 determined. In the study, the average age of the ten participants was 56.7 and ranged between 30 and
 122 83 years. The sample comprised ten participants eight of the subjects were male, five of them were
 123 primary school graduates (see Table 1).

124 **Table 1.** Socio-demographic characteristics ($n = 10$).

125	Variables	n
126		
127	Age	
128	< 49	2
129	50- 69	6
130	> 70	2
131	Gender	
132	Male	8
133	Female	2
134	Education	
135	Primary school	5
136	High School	2
137	Bachelor's degree	3
138	Job Profession	
139	Government official	3
140	Tradesperson	1
141	Retired	3
142	Private sector employee	1
143	Housewife	2
144		

145 Five of the participants lived with their spouse and child and had a total of three people living
 146 in their homes. The remaining individual lived with an adult son, the son's wife and their children.

147 All participants had full social security and all of them defined their income as adequate. The
 148 participants' medical conditions are shown in Table 2. Six of the participants in the study described
 149 their health status as being moderate, two of them as good, one as very good, and one as bad. They
 150 all stated that they were supported by their families (wife/husband and child). All those who
 151 participated in the study had a chronic disease and all of them used medication.

152 **Table 2.** History of illness of the participants ($n = 10$).

Variables	<i>n</i>
General health status	
Bad	1
Medium	6
Good	2
Very good	1
Participants' diagnoses	
Hypertension	2 (P1 and P9)
<u>Diabetes</u>	
T1DM	1 (P3)
T2DM	2 (P7 and P10)
Multiple Sclerosis	1 (P8)
Mechanic heart valve replacement patient	1 (P4)
<u>Mixed</u>	
Hypertension, T2DM, Rheumatoid	1 (P2)
Arthritis	1 (P5)
T2DM, Rheumatoid Arthritis	1 (P6)
Hypertension, Rheumatoid Arthritis	

174 Analysis of the interviews resulted in the emergence of the three themes: (1) social support, (2)
 175 disease management, self-awareness and empowerment (with subthemes including definition of
 176 chronic disease, perceived barriers, changes in emotional state and spiritual state, medication
 177 management, self-monitoring and dietary management) and (3) information sources (Table 3).

178 **Table 3.** Themes and subthemes emerging from the study.

Themes	Subthemes
Social support	-
Disease management, self-awareness and empowerment	Definition of chronic disease
	Perceived barriers
	Changes in emotional state and spiritual state
	Medication management
	Self-monitoring and dietary management
Information sources	-

194 3.1. Social support

195 Participants described family members function to their commitment to life, expression of
 196 adaptability and dependency of chronic conditions. Three people who participated in the research
 197 were not dependent on anyone, they did not consider themselves as dependent, but the rest (seven
 198 people) did think that they were dependent on their spouses and children with regard to their
 199 diseases.

200 *My wife reminds me about my medication and I have meals according to my illness lets me eat (P1).*

201 *My disease does not mean I am dependent, I don't need anyone in my illness (P2).*

202 One of the participants lived in a large family. This individual stated:

203 *I feel good, and my granddaughter makes me happy, and when I'm happy my sugar levels do not rise; if
 204 I'm sad and alone I don't eat a lot of food but my sugar level goes up (P5).*

205 One of the participants with T1DM who had an 18 month-old son stated:

206 *When I go home and see him I feel I have to pay more attention to my illness and I become more attentive
 207 to my diet. I feel I'm tied to my disease (P3).*

208 One person with multiple sclerosis stated:

209 *I do not think I am dependent, I can eat my own food, I can walk with my cane, I do it myself, why do I
 210 feel bound by it? (P8).*

211 3.2. Disease management, self-awareness and empowerment

212 Under this theme, the participants' awareness, attitudes and behaviors are explored, in addition
 213 to how they perceive the support nurses give patients so that they are able to manage their conditions.

214 3.2.1. Definition of chronic disease

215 Chronic disease refers to *continuous disease (P2), unhealthy disease and continuous disease (P3) and
 216 lifetime medication use (P4)*. One individual with T2DM defined the disease as *constantly avoiding dessert
 217 (P10)*.

218 3.2.2. Perceived barriers

219 Self-monitoring blood levels, difficulties in using diet programs for weight control were
 220 experienced as barriers of disease self-management. Of the participants emphasized that the illness
 221 negatively affected their quality of life.

222 *I have to regularly check my blood sugar and take insulin, which almost always leads to half an hour in
 223 which I feel bad. I feel like I've lost this time in my life (P3).*

224 *I need to be careful not to eat constantly and not to skip my medications or my blood pressure goes up
 225 (P1).*

226 Work load and time pressures were perceived negatively to quality of life, resulting in the
 227 training program participants felt that it was unsatisfactory.

228 *Sometimes I do not understand clearly that if I do not eat I will get bad. Nurses have any time, have to
 229 more tasks... (P10).*

230 *After the diagnosis, doctor said something hurried but I did not really understand it. The education
 231 programme was insufficient...(P3).*

232 3.2.3. Changes in emotional state and spiritual state

233 In particular, emotional state, morale, cultural and religious practices that is affecting health
 234 behaviors.

235 *My morale is bad, you give up everything, sometimes the illness makes you feel bad. I do not see a negative
 236 side effect, for example bleeding, because I do not have a great negativity (P4).*

237 Five were stated as no expectations about the treatment.

238 *Whatever Allah has destined for us (P1-P4, P7).*

239 All the participants had religious beliefs (Muslim) and six of them performed religious practices
240 (three people performed prayer, three people prayed and performed both).

241 3.2.4. Medication management

242 All of the participants used medication, also thought that the medicine was important, because
243 it protected them from thinking negatively such as one of them was defined by their diseases:

244 *When I take medicine, my sugar level drops (P7).*

245 All of the participants thought that the treatment process had been positive for them and that
246 treatment was necessary.

247 Two participants emphasized this along the following line:

248 *People are increasing resistance to life. Feel happy. People are so glad (P2).*

249 *I need to take care of myself and my daughter for a healthy long life (P4).*

250 3.2.5. Self-monitoring and dietary management

251 One particular issue emphasized that the participants gained more awareness to detect changes
252 self-monitoring their chronic conditions, dietary management was viewed as a huge responsibility,
253 expressed their own care in a dietary management.

254 *A man is his own doctor (P2).*

255 *I have to figure out whether my sugar level is falling or rising and I have to do something (P3).*

256 *I can inject insulin myself. When I do not pay attention to my diet, I understand that my sugar level goes
257 up and down (P5).*

258 *When I'm so tired my legs hurt I need to rest (P6).*

259 3.3. Information Sources

260 The participants were not very positive about educational resources, they emphasized their
261 reliance on doctors, the internet, neighbors and their own experiences as educational resources,
262 expressed a fear of training:

263 *They [doctors/nurses] said something, but I didn't understand this training (P2).*

264 *I look on the internet for information about the illness (P4).*

265 *My neighbor also has diabetes. I'm talking with her (P5).*

266 It was also expressed that, given the lack of information and learn to cope with their diseases
267 when faced with the problems of the participants, highlighting their own experiences:

268 *Now, I know myself that I am suffering from long-term hypertension and I've learned what to do. I also
269 go to regular follow-up, but I am my own doctor (P1).*

270 *After the doctor at the hospital made a diagnosis....Then I learned what to do to stay alive (P3).*

271 *Over the years, going back and forwards to the doctor and the difficulties of the disease have taught me
272 something. Now I eat unsalted food (P6).*

273 *I suffer from long-term hypertension. At first the doctors said something then I learned what to do myself.
274 They prescribe my medication (P9).*

275

276 4. Discussion

277 The patient-reported outcomes obtained from the research showed evidence of changes in health
278 outcomes. The quantitative data provided from the patients' responses allow the researcher to
279 measure changes about the assessment the health behaviour in chronic conditions [8]. It has been
280 shown that the level of education is one of the important determinants of self-care and adjustment
281 levels of patients and that as the level of education increases, the self-management of patients
282 increases [2,6,10,11]. It is vital that people with chronic diseases know what their diseases are and the
283 causes of them, as well as the necessity of treatment, its duration, the treatment plan, the anticipated
284 and unexpected effects of medications, and that they know what problems might arise if the
285 treatment is not followed [7].

286 For the social support; families played a key role in creating an environment that allowed for
287 support and engagement within the family. This kind of support included maintaining good
288 relationships between members of the family and the normalisation and contextual understanding
289 of the chronic disease [3]. Many dimensions of how family members function can have an impact on
290 a patient who suffers from various chronic conditions as well as how the family functions with regard
291 to resources such as money, the burden of care (e.g. events, activities and daily routines) and its ability
292 to cope with chronic conditions [4,16] and in strengthening self-management behaviors [2,17] of
293 dietary and medication management [18]. The patients' perception of their dependency can be
294 evaluated as having two different meanings in this research. The first is the perception of family
295 members and their commitment to life. It can be said that it is related to adherence to daily life and
296 affects the patient's attachment to life. In the process of disease, this relation positively affects the
297 health of the patient and their framing of the disease as a spiritual matter. One of the participants in
298 the study reported that he was living within a large family and was happy that his family ties
299 included grandchildren. He reported that feeling alone was a stressor which increased blood sugar.
300 The second perception is the perception of being subject to the disease process and having to receive
301 help from others in disease management. This has been seen as a negative result of self-managing
302 diseases [11]. Most family members can exert a high degree of influence on patient behaviour, they
303 help to promote autonomy, harmony and provide support for the maintenance of chronic disease
304 management [4]. Having members of one's family present during consultations promotes
305 understanding and increases knowledge, and, as a result, changes how the family functions for the
306 better.

307 For disease management, self-awareness and empowerment; there are challenges related to
308 disease management within the health system and service provision, in terms of healthcare
309 providers' attitudes and behavior, patients' adherence to medication and lifestyle changes, patients'
310 individual and clinical experiences and their choice of self-management tools [6,11,19,20]. It is
311 important to provide a window of opportunity for the development of contextually-adapted self-
312 management programs for community health nursing in developing countries [11] because in general
313 people have been living with chronic disease for many years, self-management by the patient is part
314 of everyday life and patients motivation play the central role in their own care [17,19].

315 The management of chronic diseases involves the patient learning to live with the treatment and
316 disease, and the strengthening of these self-management skills through education. The patient's
317 feeling of self-esteem and how they cope with a chronic diseases influenced by his/her past family
318 relationships, self-confidence, human relationships, personality, self-esteem and life experiences,
319 which all affect how they cope with loss. There is a relationship between the patient's personality and
320 perception of their disease and their reaction [2,9]. Patients 'showing an increasing awareness and
321 increasing and strengthening their participation in treatment is an important index of self-
322 management [2,11,19]. In this study, chronic disease is defined as an ongoing process requiring
323 lifelong drug use and a disease that cannot be healed.

324 In the study, participants reported perceived barriers that their quality of life was adversely
325 affected by the disease. As seen in the literature, it is possible to say that many variables influence
326 quality of life (follow-up blood glucose levels, dietary management, medication management,
327 difficulties in exercising regularly, related-disease complications or healthy lifestyle behaviours)

328 [2,10,16-19]. In the context of perceived barriers to self-management T1DM patient stated that it was
329 a waste of time to do regular blood sugar follow-up tests, one of participants experienced
330 complications from bleeding, two of them felt they should be careful with what they ate but were still
331 frustrated and another interviewer had to make sure not to miss the right time for their medicine to
332 be administered, otherwise they would experience tension.

333 Changes in emotional state are shown to be an important variable affecting self-management in
334 the research. If a person's morale is broken, they lose hope and feel bad about the disease, this may
335 lead to a decrease in the perception of quality of life. Depression, sadness and fear have also been
336 shown as emotional barriers to life in the research findings [2,9,18,19]. In other researches, the adverse
337 effects of treatment were associated with a lack of confidence in changing their medication and issues
338 with dietary management in diabetes, hypertension and rheumatoid arthritis patients [11,21].
339 Similarly to these research findings Reed et al. [1] found that patients who were involved in a Flinders
340 chronic disease management program perceived their general health status as well and that patients'
341 diseases were affected by the following variables: pain, fatigue, depression, disease intrusiveness,
342 and walking as a form of exercise. Religious or spiritual attitudes is important to manage of the
343 disease. It can be said that the participants who said "Whatever Allah has destined for us" is
344 approaching to the end of life and that they had no expectations about the treatment. Since the
345 perceived seriousness leads to opinions about possible consequences such as death, disability, pain,
346 social losses, the sensitivity on this will lead the individual to take precautions (treatment compliance,
347 monitoring, compliance to the treatment, nutrition, physical activity and spirituality) against the
348 disease [2,17]. The fact that all of the participants included in the research had a religious belief and
349 the fact that some of them performed a religious practice (such as prayer) improve the coping
350 mechanism related to the disease, affect the participation to the treatment positively and have
351 influence on maintenance of self-care.

352 All of the participants believed that using medicines was important for treating their disease and
353 they thought that the medication protected them from any complications related to disease.
354 Depressive illness, weight problems, difficulties in taking exercise, chronic pain, tiredness, problems
355 communicating with the doctor, a lack of support from the family and financial problems were the
356 most common obstacles to self-management. The most frequently reported obstacles to finding
357 resources about self-management were physical symptoms, a lack of knowledge, transport issues and
358 a lack of insurance [2,5,6,21]. Similar to other research findings, the difficulties that patients had with
359 changes to their medication in the research can be understood by using the extended self-regulatory
360 model, which involves their beliefs about the need for treatment and worries about the negative
361 effects of treatment [11,21].

362 All of the participants thought that the treatment process made a positive difference and that it
363 was necessary to get treatment. A participant with cardiac valve surgery noted the importance of
364 coordinating treatment in order to be with their family, and another one defined life as joy and
365 happiness. Evaluating self-management has focused on the perceived clinical benefits to patients and
366 looked at how it positive affects their acceptance and understanding of what they are experiencing.
367 However, a recent study has reported that clinicians may find it difficult to share responsibility for
368 managing conditions with their patients [11].

369 In the research conducted sources of information, it has been reported that chronic disease is not
370 effectively managed and the expectations of the participants are not adequately met due to barriers
371 related to the patients, and that the expectation of healthcare providers is not adequately met due to
372 reasons such as lack of personnel, lack of time, and the traditional care approach [2,11,20]. It is a quite
373 remarkable finding of the study that patients learn to cope with their diseases themselves when faced
374 with the problems caused by them without becoming aware of disease management. The attitude
375 and knowledge of the nurses and the establishment of effective communication techniques has an
376 important role in the management of chronic diseases [20,21]. In a comprehensive and coordinated
377 care delivery system that is accessible to everyone, the patients' want to be able to learn how to cope
378 with diseases, to maintain the continuity of care, to keep in constant communication with the
379 healthcare professionals [2]. In this study it is possible to say that the participants had been educated

380 by healthcare providers but that this did not go beyond a few suggestions. The self-management of
381 any disease is taught and the nurses needs to provide support and training to the patient.

382 Only a limited sample participated in the research. The author freely accepts that her own
383 presuppositions may have had an effect on the data analysis. In order to limit this, the adopted an
384 inductive approach, basing the themes on the data, maintaining a transparent record of these themes
385 and seeking common points of view by discussing the data with others on a regular basis.

386 5. Conclusions

387 The present study has been defined social support, awareness of information sources, self-
388 awareness and empowerment of disease self-management. It has been determined that patient-
389 centered perceived barriers to disease management negatively affect the health consequences and
390 self-management and demonstrate requirement changes planning of chronic conditions delivery
391 system. It can be concluded that the role of nursing professionals is important in increasing the
392 awareness of patients and nurse managers make a plan to change chronic disease management
393 procedure.

394 In the light of this study, healthcare professionals can investigate individual patients' self-
395 management behaviors and progression of conditions. Especially, nurse professionals can be offered
396 evidence-based self-management programs which teach strategies, practical skills and give patients
397 the confidence to manage their health condition in clinical practice to encourage healthy behaviors,
398 thus enhancing the patient's self-management skills (medication management, dietary management,
399 self-monitoring, self-testing). Future studies, especially in nurse-led clinics chronic care models
400 should be apply patient-centered care by the nurse professionals.

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408

409 References

- 410 1. Reed, R. L.; Roeger, L.; Howard, S.; Oliver-Baxter, J. M.; Battersby, M. W.; Bond, M.; Osborne, R. H. (2018).
411 A self-management support program for older Australians with multiple chronic conditions: A
412 randomised controlled trial. *Med. J. Aust.* **2018**, *208*, 69–74.
- 413 2. Jerant, A. F.; von Friederichs-Fitzwater, M. M.; Moore, M. Patients' perceived barriers to active self-
414 management of chronic conditions. *Patient Educ. Couns.* **2005**, *57*, 300–307.
- 415 3. Lawn, S.; Zabeen, S.; Smith, D.; Wilson, E.; Miller, C.; Battersby, M.; Masman, K. Managing chronic
416 conditions care across primary care and hospital systems: Lessons from an Australian Hospital Avoidance
417 Risk Program using the Flinders Chronic Condition Management Program. *Aust. Health Rev.* **2018**, *42*, 542-
418 549.
- 419 4. Whitehead, L.; Jacob, E.; Towell, A.; Abu-Qamar, M.; Cole-Heath, A. The role of the family in supporting
420 the self-management of chronic conditions: A qualitative systematic review. *J. Clin. Nurs.* **2018**, *27*, 22–30.
- 421 5. Smith, M.L.; Towne, S.D., Jr.; Herrera-Venson, A.; Cameron, K.; Kulinski, K.P.; Lorig, K.; Horel, S.A.; Ory,
422 M.G. Dissemination of Chronic Disease Self-Management Education (CDSME) Programs in the United
423 States: Intervention delivery by rurality. *Int. J. Environ. Res. Public Health.* **2017**, *14*, E638.
- 424 6. Smith, M.L.; Wilson, M. G.; Robertson, M. M.; Padilla, H. M.; Zuercher, H.; Vandenberg, R.; Corso,
425 P.; Lorig, K.; Laurent, D. D.; DeJoy, D. M. Impact of a translated disease self-
426 management program on employee health and productivity: Six-month findings from
427 a randomized controlled trial. *Int. J. Environ. Res. Public Health.* **2018**, *15*, E851.

- 428 7. Lorig, K.; Holman, H.; Sobel, D.; Laurent, D.; Gonzalez, V.; Minor, V. *Living a healthy life with chronic*
429 *conditions*, 4th ed.; Bull Publishing: New York, USA, 2012; pp. 1–15; 169-231.
- 430 8. Merolli, M.; Gray, K.; Martin-Sanchez, F. Developing a framework to generate evidence of health outcomes
431 from social media use in chronic disease management. *Medicine 2.0*. **2013**, *8*, e3.
- 432 9. Dube, L.; Rendall-Mkosi, K.; Van den Broucke, S.; Bergh, A. M.; Mafutha, N. G. Self-management support
433 needs of patients with chronic diseases in a South African township: A qualitative study. *J. Community*
434 *Health Nurs.* **2017**, *34*, 21–31.
- 435 10. Jung, J. G.; Chung, E. Y.; Kim, Y. J.; Park, H. J.; Kim, A. R.; Ban, Y. H.; Kim, J. S.; Yoon, S. J.; Kim, S. Y.; Ahn.,
436 S. K.; Nam, H. S. Improvement of knowledge, self-efficacy and self-care behaviors among diabetic patients
437 participated in the education program of Sejong Center for hypertension and diabetes management. *J.*
438 *Agric. Med. Community Health.* **2017**, *42*, 234–243.
- 439 11. Morton, K.; Dennison, L.; May, C.; Murray, E.; Little, P.; McManus, R. J.; Yardley, L. Using digital
440 interventions for self-management of chronic physical health conditions: A meta-ethnography review of
441 published studies. *Patient Educ. Couns.* **2017**, *100*, 616–635.
- 442 12. Erdoğan, S.; Nahcivan, N.; Esin, N. Research in nursing. In *Qualitative Research*, 1st ed.; Erdoğan, S. Ed.;
443 Nobel Tip: İstanbul, Turkey, 2015, pp. 133-164.
- 444 13. Golafshani, N. Understanding reliability and validity in qualitative research. *Qualitative Report.* **2003**, *8*, 597-
445 606.
- 446 14. Tong, A.; Sainsbury, P.; Craig, J. Consolidated Criteria for Reporting Qualitative Research (COREQ): A 32-
447 item checklist for interviews and focus groups. *Int. J. Qual Health Care.* **2007**, *19*, 349-357.
- 448 15. Giorgi, A. The theory, practice, and evaluation of the phenomenological method as a qualitative research
449 procedure. *J. Phenom. Psychol.* **1997**, *28*, 235–260.
- 450 16. Årestedt, L.; Benzein, E.; Persson, C.; Rämngård, M. A shared respite-The meaning of place for family well-
451 being in families living with chronic illness. *Int. J. Qual. Stud. Health Well-being.* **2016**, *11*, 30308.
- 452 17. Stamp, K. D.; Dunbar, S. B.; Clark, P. C.; Reilly, C. M.; Gary, R. A.; Higgins, M.; Ryan, R. M. Family partner
453 intervention influences self-care confidence and treatment self-regulation in patients with heart failure.
454 *Eur. J. Cardiovasc. Nurs.* **2016**, *15*, 317-327.
- 455 18. Abolghasemi, R.; Sedaghat, M. The patient's attitude toward Type 2 diabetes mellitus: A qualitative study.
456 *J. Relig. Health.* **2015**, *54*, 1191-1205.
- 457 19. Heid, A. R.; Gerber, A. R.; Kim, D. S.; Gillen, S.; Schug, S.; Pruchno, R. Timing of onset and self-management
458 of multiple chronic conditions: A qualitative examination taking a lifespan perspective. *Chronic Illn.* **2018**,
459 *0*, 1-17.
- 460 20. Molayaghobi, N. S.; Abazari, P.; Taleghani, F.; Iradj, B. Diabetes management challenges in Iran: A
461 qualitative content analysis. *J. Nurs. Manage.* **2019**, *27*, 1091-1097.
- 462 21. Bentsen, S. B.; Langeland, E.; Holm, A. L. Evaluation of self-management interventions
463 for chronic obstructive pulmonary disease. *J. Nurs. Manage.* **2012**, *20*, 802-813.