



PRODUCT DEVELOPMENT STRATEGY FOR GERIATRIC SERVICES: A CASE STUDY AT A HOSPITAL IN SURABAYA

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ABSTRACT	Keywords
<p>To support customer needs and ensure smooth organizational operations, such as in hospitals, the development of service products is essential. This analysed strategies for service product development and design recommendations to enhance services and improve patient satisfaction. A descriptive observational study with a cross-sectional approach was conducted. The sample recruitment employed purposive sampling, with a total sample size of 210 patients. The independent variables were social, economic, technological, and policy factors, while the dependent variable was the strategy for service product development. The research instrument was a questionnaire designed and tested for validity and reliability by the researchers. Social factors showed that family support was low at 66.2%, knowledge of electronics and internet development was 73.8%, knowledge of geriatric services was 70.5%, physical quality was 72.8%, and hobbies were 85.3%, categorized as high. For economic factors, the recognition of needs was 80.5%, information-seeking was 75.8%, and purchasing decisions were 77.6%, all categorized as high. Several product opportunity gaps were identified from the analysis of social, economic, technological, and policy factors in the development of geriatric services. The development of day-care services and the implementation of Patient Service Representatives & Geriatric Hotline Services are significant recommendations to meet patient service needs.</p>	<p><i>Development Strategy; Product Opportunity Gap; Value Opportunities; Service Product Recommendations.</i></p>

INTRODUCTION

The development of service products in the healthcare sector has been extensively carried out in communities. For instance, home care services (Lane et al., 2019), have been developed for managing heart failure conditions at home through a

three-stage process. The first stage is identifying and understanding, which involves comprehending the needs that can lead to the development of patient safety services for heart failure at home after hospital treatment. This stage includes focus group discussions among researchers,

patients, families, and hospitals. The second stage is conceptualizing, where a prototype that is still imperfect is tested and evaluated by healthcare professionals and family members of the patients. The third stage is realizing, which involves integrating the new product development process and implementing interventions for the patients. Service product innovations for spinal cord injury (SCI) surgeries (Cheung, 2012), aim to enhance post-operative healing speed. The first stage involves identifying opportunities by examining social, economic, technological, and cultural factors, resulting in 80 product opportunity gaps. These were grouped into six categories and prioritized using a weighted matrix with assessment criteria of 1 (low), 2 (medium), and 3 (high), leading to three prioritized product opportunities: services to accelerate post-operative recovery, healthcare services for elderly individuals, and products designed to minimize patient trauma during precise surgical procedures. The second stage, understanding the opportunity, involved gathering product opportunity results through interviews with customers and collecting their feedback to establish product criteria. The third stage, conceptualizing, transformed the product criteria into offerings perceived positively by customers. This included introducing pain management specialists for post-operative recovery acceleration, clinical psychologists for elderly patients, and enhancing services to reduce post-operative trauma by improving interactions among nurses, physiotherapists, anaesthetists, and occupational therapists.

The development of service products consists of four stages (Cagan & Vogel, 2002). The first stage is identifying opportunities for service products aimed at elderly groups. This stage involves considering social, economic, technological,

and cultural factors, followed by the organization of product opportunity gaps (POGs) and formulation of product opportunities. The second stage is understanding, which focuses on comprehending the potential of the product. In this phase, researchers aim to gain a deeper understanding of the needs of the elderly group and conduct value opportunity analysis (VOAs), translating those insights into criteria for the service product. The third stage is conceptualizing, where the results of the value opportunity analysis are transformed into a concept, and feedback is gathered from elderly customers. The fourth stage is realizing, which involves turning the concept into a market-ready service product.

A preliminary study in the geriatric unit of a public hospital in Surabaya revealed that the number of elderly patients from 2019 to 2022 showed an increasing trend of +166.8% for returning patients, while there was a decline of -25.2% in new elderly patients during the same period. Currently, the hospital lacks several services, including home care, daycare clinics, chronic inpatient care, psychogeriatric inpatient care, and respite care. Furthermore, to meet the service standards required for comprehensive care, the government, through Minister of Health Regulation No. 79 of 2014, mandates that every hospital must provide the aforementioned facilities. Based on this background, the purpose of this study is to analyze strategies for service product development and formulate recommendations for service enhancement to improve patient satisfaction.

METHOD

A descriptive observational study with a cross-sectional approach was employed in this research, where the research variables were measured only once

to observe cause-and-effect relationships. The study was conducted at a public hospital in Surabaya and took place over six months, from August 2023 to December 2023.

Population and Sample

The population for this study consists of elderly patient visits in one month across all specialist outpatient clinics, totalling 5,104 visits in 2022 at a public hospital in Surabaya. The research sample was selected based on inclusion and exclusion criteria. The inclusion criteria for the sample included: (1) Respondents aged ≥ 60 years who can complete the questionnaire independently; (2) Respondents who have been treated in the outpatient clinic for more than three months; (3) Respondents willing to be interviewed while filling out the questionnaire. The exclusion criteria were respondents aged ≥ 60 years who required assistance, making it impossible for them to complete the questionnaire.

The sample size was determined using the Krejcie-Morgan formula for cross-sectional studies, resulting in a total of 186 patients. The sample in this study was obtained through purposive sampling, where the selection was intentionally made (non-random) based on specific characteristics or criteria relevant to the study's objectives.

Instrument and Data Collection

The instrument used in this study is a questionnaire formulated by the researchers, which underwent validity and reliability testing prior to administration to respondents. Probing for each question item was conducted. The questionnaire is divided into two types: the first for patients and the second intended for the organization. This questionnaire is utilized to gather primary

data from patients (respondents), covering social factors (the role of family in the treatment process, knowledge of technological developments and the internet, knowledge of geriatric services in hospitals, need for physical activities, and need for leisure activities), economic factors (the need for geriatric services, ease of accessing information about geriatric services, and willingness to use geriatric services), and technological factors (expectations for geriatric services to be available at the hospital and the need for innovation in geriatric services at the hospital). During the focus group discussions with hospital management, the question guide was designed in accordance with the research objectives to facilitate the acquisition of the necessary information aligned with the aims of this study.

Data Analysis

Quantitative analysis was conducted using statistical analysis with SPSS, implementing cross-tabulation data. Descriptive analysis was performed on all variables, including both independent and dependent variables. This descriptive analysis was utilized to present the frequency distribution of each variable under investigation. For qualitative data, coding was performed, and themes were determined based on the responses from the study participants.

RESULTS

The respondents in this study comprised a group categorized as elderly patients at Public Hospital in Surabaya, aged ≥ 60 years, calculated from their birth year until 2023. A total of 210 respondents were included in this study. From Table 1, it is evident that the gender distribution among the respondents is balanced, with 50% male and 50% female. Regarding education

levels, the highest percentage of respondents holds a high school diploma (31.42%), while the lowest percentage has completed elementary school (7.61%). In terms of employment status, 52.85% of respondents are currently employed. When asked about their preferred place of treatment, 42.85% of respondents chose the hospital as their healthcare facility.

Table 1: Characteristics of Respondents in the Study at the General Hospital

Variable	n	%
Gender		
Male	105	50
Female	105	50
Education		
Primary school	16	7.61
Junior School	36	17.14
High School	66	31.42
Vocational Study/ Diploma	42	20
Higher Education	50	23.80
Employment status		
Employed	111	52.85
Unemployed	99	47.14
Medication Preference		
Integrated Healthcare	61	29.04
Hospital	90	42.85
General Practice	40	19.04
Self-medication	9	4.28
Not receiving any treatment	10	4.76
Total	210	100

Social Factors Among Respondents

The social factors related to the respondents indicate that support from family is rated at 66.2% in the low category. Knowledge of technological developments and the internet stands at 73.8% in the high category. Awareness of geriatric services in the hospital is rated at 70.5% in the high category, while physical quality is rated at 72.8% in the high category. Additionally, hobbies among the respondents are rated at 85.3% in the high category.

Table 2. Social Factors in Respondents

Social Factors	High	Average	Low
Family Role in the Healthcare Process	0	71 (33.8%)	139 (66.2%)
Knowledge of Electronic and Internet Developments	155 (73.8%)	51 (24.2%)	4 (2%)
Knowledge of Geriatric Services in the Hospital	148 (70.5%)	53 (25.2%)	9 (4.3%)
Need for Physical Activities	153 (72.8%)	57 (27.2%)	0
Need for Leisure Activities	179 (85.3%)	30 (14.3%)	1 (0.1%)

Economic Factors Among Respondents

Table 3 shows that the majority of respondents live with an income ranging from IDR 2,000,001 to IDR 5,000,000, accounting for 61.44%. Most respondents report that their income sources come from self-employment and entrepreneurship, making up 56.20% of the respondents. Additionally, respondents evaluate the outpatient geriatric care fees as economically feasible or sufficient, with 87.14% rating it in this category. For inpatient geriatric care, 67.14% of respondents also assess the fees as economically feasible or sufficient.

Table 3. Monthly Income of Respondents

Variable	n	%
Monthly Salary		
≤ Rp. 2.000.000	33	15,71
Rp. 2.000.001 – Rp. 5.000.000	129	61,44
Rp. 5.000.001 – Rp. 10.000.000	47	22,38
≥ Rp. 10.000.001	1	0,47
Source of Salary		
Family or Children	92	43,80
Entrepreneur	118	56,20
Perception about the outpatients Geriatric Care Fees		
Economics/ affordable	183	87,14
Expensive	27	12,86
Perception about Inpatient Geriatric Care Fees		
Economics/ affordable	141	67,14
Expensive	69	32,86
Total	210	100

Technological Factors Among Respondents

Table 4 indicates that the respondents at a Public Hospital exhibit a high category in technological factors concerning the need for geriatric services at the hospital, with a rating of 94.3%. Additionally, technological factors also reflect a high category regarding the dimension of innovation in geriatric services at the hospital, achieving a rating of 94.8%.

Table 4: Technology Factors in Respondents

Technology Factor	High	Medium	Low
Expectations for Geriatric Services to be Available at the Hospital	198 (94.3%)	10 (4.8%)	2 (0.9%)
The Need for Innovation in Geriatric Services at the Hospital	199 (94.8%)	9 (4.3%)	2 (0.9%)

The recommendations are based on the researchers' review and a focus group

discussion (FGD) with five members of the management at Gotong Royong Public Hospital (the director, head of medical services, head of nursing and midwifery, head of general affairs and finance, and head of the medical committee) aimed at addressing customer needs and creating new service products. Based on the results of the FGD, the following recommendations were made:

1. Prepare home care services and a pick-up service.
2. Establish a day-care service for the elderly.
3. Create a one-stop service area and appoint patient service representatives & a geriatric hotline service.
4. Develop a psychogeriatric service area.
5. Prepare an application for geriatric health development in eBook format.
6. Schedule regular seminar activities.
7. Hire certified gerontological nurses, occupational therapists, social workers, speech therapists, and consultants in internal medicine specializing in geriatrics.
8. Set up registration areas, an integrated geriatric team, an acute geriatric ward, a day-care clinic, a chronic geriatric

ward, and a respite care facility for elderly patients.

9. Equip the necessary facilities and infrastructure that are not yet available in accordance with Ministerial Regulation No. 79 of 2014.

In Table 5, the assessment was conducted by the researchers in collaboration with the management of Gotong Royong Public Hospital. It was determined that there are two priority product criteria that the hospital is capable of implementing: the day-care service and the patient service representative & geriatric hotline service.

Table 5: Weighting of Value Opportunities

Product Opportunity Gap	Time and Financial Resource Analysis	The potential of a product that is useful, usable, and desirable.	Value Opportunities		
			The potential size of the market	The potential for creativity	The potential contribution from the organization.
Pick-up service	2	3	3	1	2
Patient service representative & Geriatric hotline service	3	3	2	3	3
Day care	3	3	3	3	2
Geriatric health development ebook	2	2	2	1	2
One stop service	1	3	3	2	3
Home care	1	3	3	1	2
Psychiatric Treatment	3	3	2	3	2
Seminar	3	3	3	1	3

Customer Feedback on Product Value Concept

Based on Table 6 above, an average of 96% of the 30 respondents provided positive feedback, responding "yes" to the concept of the day-care service and the patient service representative & geriatric hotline service. The suggestions provided by respondents indicated that the proposed service fees are reasonably economical, and the quality of the representatives ensures that the patient service representative & geriatric hotline service operates smoothly.

Table 6: Customer Feedback on Product Concepts

Questions	Yes	No
The concept of the day care service is excellent	30 (100%)	0
The concept of the patient service representative and geriatric hotline service is also commendable	27 (90%)	3 (10%)
The Day care service that I want to try	28 (93.3%)	2 (6.7%)
The day care service addresses essential needs	28 (93.3%)	2 (6.7%)
I will recommend the day care service after I experience it	30 (100%)	0

DISCUSSION

Social factors encompass the social and cultural dynamics that shape and drive historical trajectories (Cagan & Vogel, 2002). Theoretically, social factors influence an individual's cultural development, and several elements contribute to these social factors, including family dynamics, work patterns, health behaviors, computer and internet literacy, political environment, the success of products in other contexts, recreational spaces, sports activities, entertainment industries, films and television, literature, music, and workplace environments (Cagan & Vogel, 2002). This aligns with the findings of the study, where respondents demonstrated a connection to current cultural developments through their engagement in activities that influence their daily lives.

In this study, social factors were measured through five dimensions, specifically focusing on the role of family in the treatment process, knowledge of electronic developments and the internet, understanding of geriatric services at the hospital, the need for physical activity, and the need for leisure activities. Based on the measurements conducted on respondents at the General Hospital, the findings indicate a low percentage of 66.2% regarding the family's role in the treatment process. This suggests a deficiency in the family's support for patients during their treatment, which can lead to decreased motivation, particularly among elderly patients. If this situation persists, it may adversely affect the healing process. Research indicates that patients' adherence to treatment is significantly influenced by encouragement and support from family members (Ebrahimi et al., 2021; Shahin et al., 2021). The hospital's role concerning social factors involves adopting both intrapersonal and professional approaches to provide

consultation and education to families, thereby encouraging and supporting elderly patients throughout their treatment process (Olagbemide et al., 2021).

In the context of knowledge regarding electronic developments and the internet, this study demonstrates respondents' enthusiasm for seeking health information through electronic means and the internet. This finding serves as a basis for the hospital to optimize the use of electronic media and the internet in disseminating health information (Kuwabara et al., 2020; Ridwan Hasyim & Junadi, 2018; Timmers et al., 2020). Meanwhile, regarding the understanding of geriatric services at the hospital, the majority of respondents indicated that they possess knowledge about these services. This suggests that to rekindle patient interest in geriatric services, the hospital should consider modifying its approach to reintroducing these offerings. Research indicates that patient involvement in services, through satisfaction surveys and an understanding of available services, can enhance service quality and increase patient satisfaction levels (Keelson et al., 2024).

The results demonstrated that respondents have an interest in the activities offered daily by the hospital. This interest presents an opportunity for the hospital to develop strategies aimed at enhancing physical activity within its premises. Consistent with this, prior research indicates that providing facilities for physical activities serves not only as a strategy for improving patient health but also as a marketing approach for hospitals to increase visitor interest in utilizing other services (Cunningham & O'sullivan, 2021; Tuso, 2015). Furthermore, regarding the factor of leisure time activities, elderly patients often engage in various activities available at the hospital. Based on these findings, it can be

concluded that hospitals should recognize the needs of elderly patients who may face barriers in seeking leisure activities and provide new facilities to support them in utilizing their free time effectively.

Given the social factors, such as the low role of family support during medical treatment, high knowledge of electronic developments and the internet, high awareness of geriatric services at the hospital, high needs for physical activities, and high demand for leisure activities, it is essential to develop strategies to address these issues. One potential product development strategy is the implementation of a transportation service for elderly patients. This service would involve staff acting as liaisons to address needs and remind elderly patients of their healthcare appointments, enhancing outreach through increased health education and seminars.

Additionally, the hospital should focus on improving health information dissemination via social media and collaborate with elderly communities to raise awareness of geriatric care. Healthcare providers should directly communicate relevant information to elderly patients present in the hospital. Furthermore, creating physical activity programs, such as elderly exercise classes and gardening activities, would cater to the interests of this demographic. Establishing a day-care service for elderly patients can also help mitigate boredom and enhance their daily experiences. Research conducted in Malaysia supports this, indicating that transportation services for the elderly can significantly improve their physical and mental well-being (Abdul Latiff & Mohd, 2023).

Economic factors are directly related to an individual's desire to choose or purchase a product (Alade, 2023). According to the theory of psychoeconometrics, purchasing behavior is influenced by the belief that individuals acquire goods or services that they perceive will enhance their quality of life (Ross, 2022; Stimson & Marans, 2011). Economic conditions are influenced by factors such as the national currency value, consumer purchasing power, and net income. In this study, economic factors were measured using a questionnaire that included several dimensions: the need for geriatric services, the ease of accessing information about these services, and the willingness to utilize geriatric care. The results indicated that a majority of respondents at the public hospital rated these factors as high.

The need for geriatric services was reported at 80.5% in the high category, indicating a significant demand for such services among the elderly. This presents an opportunity for the hospital to implement and expand geriatric care services. Additionally, the need for information about geriatric services was assessed at 75.8%, also in the high category. This suggests that the hospital should focus on providing education and information regarding geriatric services and health to facilitate access to reliable sources for the elderly. Finally, regarding the desire to utilize geriatric services, the study found a high rating of 77.6%. This reflects a substantial opportunity for the hospital to develop the geriatric services needed by this population.

These results were measured using a questionnaire, which indicated that the majority of respondents were aware of geriatric services, had received information about these services, and expressed willingness to utilize them if available and

aligned with their needs. Economic factors play a crucial role in product development, as they help determine who has the income, who makes the purchases, and for whom the products or services are intended (Cagan & Vogel, 2002). This aligns with the notion that the pricing of services offered should be adjusted to match consumers' purchasing power regarding geriatric care.

Technological factors focus on the direct outcomes or insights derived from researchers within companies, military institutions, and universities, particularly concerning the development of the internet and digital devices. In this study, technological factors were measured through a questionnaire encompassing several dimensions, including the expectation for geriatric services to be available at the hospital and the need for innovation in these services. Based on the survey results from respondents, the expectation for geriatric services to be available was rated high, at 94.3%. This finding serves as a benchmark for the hospital to promptly prepare the necessary geriatric services in accordance with the needs of the elderly population.

The need for innovation in geriatric services at the hospital was rated high, at 94.8%. Consequently, Rumah Sakit Umum is committed to continuously innovating and developing geriatric healthcare services that align with the needs of the elderly population in maintaining their health. The findings of this study indicate that respondents had a positive perception of the geriatric services offered at Rumah Sakit Umum. At this stage, it is crucial for the hospital to promptly address these needs by translating them into tangible service products that can be effectively experienced by the elderly.

According to feedback from the questionnaire, 96% of the 30 respondents agreed on the necessity of innovative geriatric services, specifically the implementation of day care services and the establishment of a patient service representative and geriatric hotline service. Based on the research findings, several strategic issues have been identified: 1. **Planning for Day Care Services:** The implementation of day care services is essential to develop geriatric services, as indicated by the respondents' expressed need for such services. The hospital could operate three different models of day care services, allowing selection of one model based on the availability of human resources, facilities, and funding. This planning should include managerial roles (service section heads, secretaries, and treasurers), administrative staff (receptionists), professionals (doctors, nurses, psychologists, nutritionists, spiritual advisors, and instructors), activity coordinators, support staff (security personnel, cooks, gardeners, cleaning staff, bookkeepers, and drivers), as well as volunteers (caregivers); 2. **Establishing a Main Service at the hospital:** The hospital should prioritize the establishment of a service that provides staff dedicated to answering queries and reminding families and respondents about health information and examination schedules. By addressing these strategic issues, a public hospital can effectively enhance its geriatric services and better meet the needs of its elderly patients.

CONCLUSIONS

The analysis results indicate that social factors, economic factors, and technological factors contribute to the needs and desires of respondents in developing geriatric services. These factors, along with policy considerations, will generate product opportunity gaps that can serve as a foundation for strategies to develop products

needed by respondents, aligning with the standards set forth in Minister of Health Regulation No. 79 of 2014 to achieve a comprehensive level of service. The value opportunity analysis produces prioritized data for implementing product development in geriatric services. Priority service products, such as day-care and the Patient Service Representative & Geriatric Hotline Service, are conceptualized as services that can be offered within the geriatric care framework at public hospitals. Additionally, providing new services tailored to the needs of older adults, such as physical activity facilities, supplementary activities for leisure time, and transportation services for the elderly, can be breakthrough strategies to enhance the hospital's marketing efforts, thereby increasing service demand and patient satisfaction.

Based on the findings from this study, several recommendations have been formulated, including the need for hospitals to optimize the fulfilment of facilities, infrastructure, and human resources so that elderly patients can maximize their health improvements. There should be standardized geriatric service development and supportive hospital policies to enhance the capabilities of healthcare personnel and the necessary facilities. Another strategy to increase patient interest in geriatric services is to conduct activities that foster good relationships and collaboration between elderly organizations and local senior citizens. Monthly meetings can be organized to provide health education and counselling, fostering familiarity and establishing effective communication. Hospital management should also regularly evaluate hospital services by involving patients in assessments to gather accurate information regarding their perceptions, needs, and expectations concerning geriatric services at the hospital.

REFERENCES

- Abdul Latiff, A. R., & Mohd, S. (2023). Transport, Mobility and the Wellbeing of Older Adults: An Exploration of Private Chauffeuring and Companionship Services in Malaysia. *International Journal of Environmental Research and Public Health*, 20(3). <https://doi.org/10.3390/ijerph20032720>
- Alade, O. (2023). The Influence of Socio-Economic Factors on Consumer Behavior: A Theoretical Explanation of Reasoned Action. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4503703>
- Cagan, J., & Vogel, C. M. (2002). Creating Breakthrough Products: Innovation from Product Planning to Program. In *Upper Saddle River, NJ: Prentice Hall* (Vol. 19). https://books.google.com/books?hl=en&lr=&id=hLSRf61_nnC&oi=fnd&pg=PR15&dq=Cagan,+J.,+Vogel,+C.+Creating+Breakthrough+Products:+Innovation+from+Product+Planning+to+Program+Approval.+Upper+Saddle+River+,+NJ+Prentice+Hall%3B+PTR,+2002&ots=xoYFhEJt2Q&sig=hvD
- Cheung, M. (2012). Design thinking in healthcare: Innovative Product Development through the iNPD process. *Design Journal*, 15(3), 299–324. <https://doi.org/10.2752/175630612X13330186684114>
- Cunningham, C., & O'sullivan, R. (2021). Healthcare professionals promotion of physical activity with older adults: A survey of knowledge and routine practice. *International Journal of Environmental Research and Public Health*, 18(11). <https://doi.org/10.3390/ijerph18116064>

- Ebrahimi, Z., Patel, H., Wijk, H., Ekman, I., & Olaya-Contreras, P. (2021). A systematic review on implementation of person-centered care interventions for older people in out-of-hospital settings. *Geriatric Nursing*, 42(1), 213–224. <https://doi.org/10.1016/j.gerinurse.2020.08.004>
- Keelson, S. A., Addo, J. O., & Amoah, J. (2024). The impact of patient engagement on service quality and customer well-being: an introspective analysis from the healthcare providers' perspective. *Cogent Public Health*, 11(1), 2340157. <https://doi.org/10.1080/27707571.2024.2340157>
- Kuwabara, A., Su, S., & Krauss, J. (2020). Utilizing Digital Health Technologies for Patient Education in Lifestyle Medicine. *American Journal of Lifestyle Medicine*, 14(2), 137–142. <https://doi.org/10.1177/1559827619892547>
- Lane, B., Hanke, S. P., Giambra, B., Madsen, N. L., & Staveski, S. L. (2019). Development of a clinician-parent home care education intervention. *Cardiology in the Young*, 29(10), 1230–1235. <https://doi.org/10.1017/S1047951119001318>
- Olagbemide, O. J., Omosanya, O. E., Ayodapo, A. O., Agboola, S. M., Adeagbo, A. O., & Olukokun, T. A. (2021). Family support and medication adherence among adult type 2 diabetes: Any meeting point? *Annals of African Medicine*, 20(4), 282–287. https://doi.org/10.4103/aam.aam_62_20
- Ridwan Hasyim, M. A., & Junadi, P. (2018). Analyzing Patient Education Methods to Improve Patient Care in Hospital: A Systematic Review. *KnE Life Sciences*, 4(9), 244. <https://doi.org/10.18502/cls.v4i9.3576>
- Ross, D. (2022). Psychologists should learn structural specification and experimental econometrics. In *Behavioral and Brain Sciences* (Vol. 45). <https://doi.org/10.1017/S0140525X21000108>
- Shahin, W., Kennedy, G. A., & Stupans, I. (2021). The association between social support and medication adherence in patients with hypertension: A systematic review. *Pharmacy Practice*, 19(2). <https://doi.org/10.18549/PharmPract.2021.2.2300>
- Stimson, R., & Marans, R. W. (2011). Objective measurement of quality of life using secondary data analysis. In *Social Indicators Research Series* (Vol. 45, pp. 33–53). https://doi.org/10.1007/978-94-007-1742-8_2
- Timmers, T., Janssen, L., Kool, R. B., & Kremer, J. A. M. (2020). Educating patients by providing timely information using smartphone and tablet apps: Systematic review. In *Journal of Medical Internet Research* (Vol. 22, Issue 4). <https://doi.org/10.2196/17342>
- Tuso, P. (2015). Strategies to Increase Physical Activity. *The Permanente Journal*, 19(4), 84–88. <https://doi.org/10.7812/TPP/14-242>