



THE INFLUENCE OF BPJS HEARING AID POLICY IMPLEMENTATION ON THE PATIENT ACCEPTANCE RATE AT CV POWER HEARING BALI

Muhammad Azwar¹, Rusnita², Christin Agustina³, Munadhir⁴, Zainuddin⁵, Lilis Widiastuty⁶

¹ Program Studi Magister Kesehatan Masyarakat, Universitas Mega Buana, Palopo

^{2,3,4,5} Program Studi Kesehatan Masyarakat, Fakultas Ilmu Kesehatan, Universitas Pejuang Republik Indonesia, Makassar

⁶ Program Studi Kesehatan Masyarakat, Fakultas Kedokteran dan Ilmu Kesehatan, Universitas Islam Negeri Alauddin, Makassar

ARTICLE INFORMATION

Received : April 1st, 2025

Revised : April 11st, 2025

Available online : June 2nd, 2025

CORRESPONDENCE

Phone : 085255439938

Email : azwarrisman@gmail.com

KEYWORDS

Policy Implementation; Patient Admission

DOI: 10.24252/hmsj.v6i2.57149

ABSTRACT

Background: One of the services covered by BPJS Kesehatan is the provision of hearing aids for patients with hearing impairments. Hearing aids play an important role in improving patients' quality of life in terms of communication, social interaction, and productivity.

Objective: This study aims to analyze the effect of the implementation of the BPJS hearing aid policy on the level of patient acceptance..

Method: This research is quantitative with an analytical observational design. The sample consists of BPJS Kesehatan users who visited CV Power Hearing Bali and met the research criteria, totaling 30 individuals, selected using a total sampling technique. Data was collected using a Likert-scale questionnaire for all research variables. The collected data was then analyzed using the chi-square statistical test.

Result: The study results indicate that the service received variable has a significance value (p -value = 0.007), waiting time (p -value = 0.048), and satisfaction level (p -value = 0.007).

Conclusion: There is an influence of the implementation of the BPJS hearing aid policy on the level of patient acceptance at CV Power Hearing Bali.

PENDAHULUAN

Hearing plays an important role in determining a person's quality of life, as healthy hearing allows individuals to speak and communicate with others, enabling them to live socially and economically productive lives. Ear and hearing health disorders can

occur in individuals of all ages. Ear and hearing problems can be caused by genetic factors, complications at birth, certain diseases, the use of certain medications, noise exposure, and aging factors. (Jilla et al., 2023)

According to the World Health Organization (WHO), more than 5% of the

global population, or approximately 430 million people, require rehabilitation for hearing loss (including 34 million children). (Byun et al., 2022) The majority of people with hearing loss (almost 80%) live in low- and middle-income countries. It is estimated that by 2050, more than 700 million people, or 1 in every 10 individuals, will experience hearing loss. (Appau et al., 2024). Based on the 2018 Basic Health Research (Riskesdas) results, the proportion of children aged 24-59 months who were born with hearing impairment is 0.11%. (*Laporan Riskesdas 2018 Nasional*, n.d.).

Hearing impairment is a significant health issue in Indonesia, with a broad impact on the quality of life of individuals and society as a whole. According to data from the Indonesian Ministry of Health, an estimated 16 million Indonesians experience hearing loss that requires medical treatment. Among them, the majority need hearing aids (HAs) to improve or address their hearing problems. However, the cost of acquiring and maintaining hearing aids often becomes a major barrier, especially for those in lower economic conditions. (Rafa Zemy Amalia et al., 2025).

In Indonesia, efforts to improve public accessibility to hearing aid services are carried out through the implementation of the Social Security Administering Body for Health (BPJS Kesehatan). BPJS Kesehatan aims to provide financial protection for all Indonesian citizens so they can access quality healthcare services.

This aligns with the notion that health insurance enables everyone to access adequate quality healthcare services, including promotional, preventive, curative, rehabilitative, and palliative care, without financial hardship. This concept is widely adopted, especially in low- and middle-income countries. (Appau et al., 2024).

The Indonesian government, through the Social Security Administering Body for Health (BPJS Kesehatan), strives to improve access to healthcare services for all levels of society. One of the services covered by BPJS Kesehatan is the provision of hearing aids for patients with hearing impairments. Hearing aids play an important role in enhancing patients' quality of life in terms of communication, social interaction, and productivity. (Thai et al., 2022) The provision of hearing aids is granted based on recommendations from an ENT specialist. BPJS Kesehatan participants can receive a hearing aid a maximum of once every five years per ear, with a reimbursement rate of up to one million rupiahs, which is insufficient to meet the community's needs for purchasing a hearing aid. (Bonnafous et al., 2022) The implementation of this policy faces various challenges, such as the gap between patient needs and the availability of hearing aids. (Windmill, 2022) Patients' understanding of the claim procedures and the quality of services provided are related to their level of acceptance of this program. This is also influenced by several factors, including the

clarity of information, the effectiveness of the hearing aids, and patients' experiences in accessing BPJS Kesehatan services. (Frisby et al., 2024).

The services received by patients often do not meet expectations, either in terms of the quality of the devices or the distribution procedures. (Cho et al., 2022) Studies show that the hearing aids provided by BPJS sometimes do not fully meet the specific needs of patients, which affects their effectiveness in daily use. (Picou et al., 2024). In addition, waiting times in the claims process and distribution of hearing aids are often an obstacle. In addition, the waiting time in the claim process and distribution of hearing aids often becomes an obstacle. (Bernstein & Megwalu, 2023) Complex administrative factors and limited resources, such as audiologists and device availability, can cause delays in service delivery. (Frisby et al., 2024). Long waiting times not only reduce patient satisfaction but also have the potential to worsen the patient's condition. (Dewi et al., n.d.).

Patient satisfaction level is an important indicator in assessing the success of policy implementation. Patient satisfaction is influenced by various factors such as the quality of healthcare services, clarity of information, and user experience with the received hearing aid. Research shows that good and timely service can increase patient trust in the BPJS Health program and support

the goal of Universal Health Coverage (UHC). (Knoetze et al., 2024)

One of the healthcare centers that plays an important role in handling hearing disorders is CV Power Hearing Bali. As a leading hearing specialist center, CV Power Hearing Bali is expected to be an adequate service provider for people in need of hearing aids. However, in practice, the effectiveness of BPJS Health policy implementation at CV Power Hearing Bali has not been fully understood, particularly regarding public response and perception of the policy, especially those who require hearing aid services and BPJS Health policies related to hearing aid procurement and accessibility. Public perception can be influenced by various factors, including understanding of the policy, personal experience, and expectations of healthcare services.

Patient perception and satisfaction with healthcare services are closely related to the success of policy implementation. If the policy is not optimally implemented, there is a concern that it may decrease public trust in the national health insurance program. Therefore, it is crucial to evaluate the impact of BPJS Health policy implementation in providing hearing aids on patient acceptance levels, both from a technical and emotional perspective. (Lisan et al., 2022)

Hearing aids remain expensive even with the IDR 1 million subsidy from BPJS Kesehatan. Many patients hesitate to purchase them due to the high remaining costs. The

number of BPJS users buying hearing aids at CV Power Hearing Bali is relatively low, possibly due to financial constraints. However, further field research is needed to confirm the exact reasons behind public perceptions of BPJS Kesehatan's policy implementation at this center.

Based on the background explanation above, this research is conducted to determine the causes of this issue by analyzing the impact of the BPJS hearing aid policy implementation on patient acceptance at CV Power Hearing Bali.

METHODS

The type of research used in this study is quantitative research with an analytical observational approach to analyze the impact of the BPJS hearing aid policy implementation on patient acceptance at CV Power Hearing Bali. The research location is CV Power Hearing Bali, chosen because it collaborates with BPJS Kesehatan to provide hearing aid (ABD) fittings.

The population in this study consists of all BPJS Kesehatan users who have visited CV Power Hearing Bali within the last month. The sample selection includes patients who visited within the last month and met the inclusion criteria set by the researcher.

The sample in this study was selected using the total sampling technique, meaning that the entire population was used as the

research sample, totaling 30 people. This approach was taken due to the limited population size, ensuring that all individuals were included to obtain accurate and reliable data. The inclusion criteria for this study were: respondents who have BPJS Kesehatan, respondents who have received services at CV Power Hearing Bali, and those willing to sign the informed consent form.

The data collection method in this study uses a questionnaire, which is a written list of statements aimed at obtaining responses from participants. The questionnaire is designed to measure public perception as BPJS Kesehatan users who visit CV Power Hearing Bali. The researcher collects data by distributing questionnaires using a Likert scale. Each item in the questionnaire has five response options with different weights or values. Each response choice is assigned a score to determine the alternative answers selected by respondents.

RESULTS

Description of respondent characteristics (age, gender, membership status, and visit frequency) and research variables, namely the implementation of the BPJS hearing aid policy (received services, waiting time, and satisfaction) as well as patient acceptance at CV Power Hearing Bali.

Respondent Characteristics

Table 1. Frequency Distribution Based on Respondent Characteristics and Research Variables

Variable	Frequency	%
Age		
Under 20 years old	3	10,0
25-35 years old	5	16,7
36-50 years old	7	23,3
Over 50 years old	15	50,0
Gender Into		
Male	19	63,3
Female	11	36,7
Membership Status		
Independent	14	46,7
Penerima Bantuan Iuran (PBI)	9	30,0
Participants from the Company	7	23,3
Frequency of Visits		
1-2 Visits	9	30,0
3-5 Visits	18	43,3
>5 Visits	8	26,7
Service Received		
Good	27	90,0
Quite Good	3	10,0
Not Good	0	0,0
Waiting Time		
Fast	27	76,7
Medium	7	23,3
Long	0	0,0
Satisfaction		
Satisfied	27	76,7
Quite Satisfied	7	23,3
Not Satisfied	0	0,0
Patient Acceptance		
Good	28	93,3
Quite Good	2	6,7
Not Good	0,0	0,0

Source: Primary Data 2024

Based on Table 1, the characteristics of respondents by age show that the majority are over 50 years old, totaling 15 people (50.0%), predominantly male, with 19 individuals (63.3%). Most respondents have BPJS Mandiri membership status, totaling 14 people (46.7%), and the majority fall into the category of 35 visits, with 13 people (43.3%).

Regarding the research variables, it was found that almost all respondents had a positive perception of the services received, with 27 people (90.0%). Similarly, the majority of respondents, 23 people (76.7%), believed that the waiting time was categorized as fast. Furthermore, nearly all respondents, 27

people (90.0%), were satisfied with the services received. Additionally, almost all respondents, 28 people (93.3%), had a good level of acceptance regarding the implementation of the BPJS hearing aid policy at CV Power Hearing Bali.

Table 2. Analysis of the Relationship Between Research Variables

Variable	Policy Implementation						Total		<i>p-Value</i>
	Good		Fair		Poor				
	f	%	f	%	f	%	f	%	
Service Received									
Good	27	90,0	0	0,0	0	0,0	27	90,0	0,007
Enough	1	3,3	2	6,7	0	0,0	3	10.0	
Less	0	0,0	0	0,0	0	0,0	0,0	0,0	
Waiting Time									
Fast	23	76,7	0	0,0	0	0,0	23	76,7	0,048
Medium	5	16,7	2	6,7	0	0,0	7	23,3	
Long	0	0.0	0	0,0	0	0,0	0	0,0	
Satisfaction									
Satisfied	27	90,0	0	0,0	0	0,0	27	90,0	0,007
Enough	1	3,3	2	6,7	0	0,0	3	10.0	
Less	0	0.0	0	0.0	0	0.0	0.0	0.0	

Source: Primary Data 2024

Based on Table 6.2, it can be seen that respondents have a positive perception of the services received, which is followed by a good level of patient acceptance, namely 27 people (90.0%). Meanwhile, the lowest percentage is respondents who have a fairly good perception of the services received, followed by a good level of patient acceptance, namely only 1 person (3.3%). For the "poor" category, there are no respondents in either the service received variable or the level of patient acceptance. The Chi-Square statistical test results show a $p\text{-value} = 0.007 < \alpha = 0.05$, so it can be concluded that there is an influence between the implementation of the BPJS

hearing aid policy, based on the aspect of services received, on the level of patient acceptance at CV Power Hearing Bali. Respondents have a positive perception of the waiting time for services in the "fast" category, followed by a good level of patient acceptance, namely 23 people (76.7%). Meanwhile, the lowest percentage is respondents who perceive the waiting time as "moderate" and are followed by a fairly good level of patient acceptance, namely 2 people (6.7%). For the "long" category, there are no respondents in either the waiting time variable or the level of patient acceptance. The Chi-Square statistical test results show a $p\text{-value} = 0.048 < \alpha = 0.05$,

so it can be concluded that there is an influence between the implementation of the BPJS hearing aid policy, based on the waiting time aspect, on the level of patient acceptance at CV Power Hearing Bali. Respondents expressed satisfaction in the "satisfied" category, followed by a good level of patient acceptance, namely 27 people (90.0%). Meanwhile, the lowest percentage is respondents who felt "fairly satisfied" and were followed by a fairly good level of patient acceptance, namely 2 people (6.7%). For the "dissatisfied" category, there were no respondents in either the satisfaction variable or the level of patient acceptance. The Chi-Square statistical test results showed a $p\text{-value} = 0.007 < \alpha = 0.05$, so it can be concluded that there is an influence between the implementation of the BPJS hearing aid policy, based on the satisfaction aspect, on the level of patient acceptance at CV Power Hearing Bali.

DISCUSSION

Implementation of BPJS Hearing Aid Policy Based on the Aspect of Services Received on the Level of Patient Acceptance

The research results show that almost all respondents have a good perception of the services received, which is followed by a good level of patient acceptance. (Bannon et al., 2023) Meanwhile, the lowest category consists of respondents who have a fairly good perception and are followed by a good level of patient acceptance. As for the "poor" category,

there are no respondents in either the service received variable or the level of patient acceptance. (Reed et al., 2021)

These results are in line with research conducted by (Zachreini et al., n.d.) which found that service quality affects the level of patient acceptance and patient satisfaction. (Azzahra et al., n.d.) stated that the quality of individuals is an essential element in good patient acceptance. In this regard, healthcare providers should emphasize the development of quality services, including accessibility, information services, and physical services, to achieve effective quality improvement. The results of this study are in line with research conducted by (Picou et al., 2024) which states that there is a positive influence between service quality and patient satisfaction. This certainly affects the level of patient acceptance of the services received. Research conducted by (Appau et al., 2024) found that interpersonal medical services have a direct impact on patient satisfaction. This study is also in line with research conducted by (Frisby et al., 2024) which states that service quality has a significant impact on patient satisfaction with the services received.

Based on the conducted research, the findings illustrate the impact of received services on the level of patient acceptance at CV Power Hearing Bali. This includes good accessibility, where respondents perceive the service process as easy and the strategic service location as helpful. (Picou, 2022). Providing clear information also has a

significant impact. (Yi et al., 2022) Patients who understand their rights and procedures tend to be more accepting of the BPJS hearing aid policy. (Ostrowski & Mouzakes, 2022) Friendly and professional medical services build trust, as positive interactions make patients feel valued and supported. Additionally, an efficient administrative process ensures that patients do not feel burdened by procedures, making them more likely to support this policy. Equally important is the quality of hearing aids, which is a key factor—patients who receive high-quality devices tend to be more satisfied and accept the policy more readily.

Implementation of BPJS Hearing Aid Policy Based on Waiting Time Aspect on Patient Acceptance Level

The research results show that almost all respondents have a positive perception of the waiting time for fast service, followed by a good level of patient acceptance. Meanwhile, the moderate category is followed by a fairly good level of patient acceptance. As for the long category, there were no respondents in either the waiting time variable or the patient acceptance level. The Chi-Square statistical test results found that there is an influence between the implementation of the BPJS hearing aid policy based on the waiting time aspect and the level of patient acceptance at CV Power Hearing Bali.

The research results show that the waiting time for patients or respondents, from

registration to receiving services at CV Power Hearing Bali, meets the standard. This means that most of them receive services within less than 30 minutes. This is evidenced by their responses to the questionnaire, stating that they received the expected service, including fast service times for obtaining hearing aids and the prompt provision of information related to the BPJS service process. This, of course, serves as a strengthening factor in providing patient satisfaction, especially for those using BPJS Health to claim hearing aids.

A good and high-quality service is reflected in friendly, fast, and comfortable service. Waiting time for services is often overlooked and does not meet standards. (Xue et al., 2024) stated that if patient waiting times are long, it will affect patient acceptance levels, impacting patient satisfaction with the service. According to (Dwiyovita et al., 2024) several factors often influence waiting time in patient care, including a lack of staff, patients not keeping appointments, staff not adhering to schedules, slow computer processing, and delays in preparing medical records. This study is also consistent with research conducted by (Monica & Suzana, 2024) which states that waiting times at polyclinic registration depend heavily on the responsiveness, willingness, readiness, attitude, and speed of staff in providing services. Additionally, the timeliness of services significantly influences patient satisfaction in fulfilling their needs for care.

Implementation of BPJS Hearing Aid Policy Based on Satisfaction Aspects on Patient Acceptance Levels

The results of this study indicate that patients feel satisfied with several aspects, including the friendliness of the staff, speed of service, suitability of services to patient needs, ease of procedures for BPJS patients, completion time of BPJS procedures, and the level of comfort of the facilities, including waiting rooms, medical equipment, and cleanliness of service areas. These factors are the main reasons patients feel satisfied, and ultimately, they can accept the implementation of the BPJS hearing aid policy at CV Power Hearing Bali.

Patient satisfaction is the level of feeling that arises as a result of the healthcare services received after the patient compares them with their expectations (Studi et al., n.d.). Thus, patient satisfaction depends on the performance of the services provided by the healthcare facility. If the services received do not meet expectations, the patient will feel dissatisfied (Adnan & Rahmah, 2024).

Patient acceptance of the implementation of BPJS hearing aid services at CV Power Hearing Bali is considered good because they feel comfortable and safe when using the available facilities. These include a clean patient examination room, neatly dressed staff, clean and proper medical equipment, responsive staff in handling patient complaints, clear and easily understood information, careful treatment, patient examinations conducted according to queue

numbers, friendly staff, and good communication between staff and patients. As a result, many patients feel satisfied with the services provided.

CONCLUSION

A total of 90.0% of respondents showed a positive perception of the services received. This reflects that the majority of BPJS users are satisfied with the quality and effectiveness of the services provided in fulfilling their hearing aid needs. A total of 76.7% of respondents stated that the waiting time they experienced during the process of obtaining a hearing aid could be categorized as fast, indicating that the service system implemented there is quite efficient in terms of time. (Tran et al., 2021) A total of 90.0% of respondents expressed satisfaction with the services they received. This figure indicates that the BPJS Health policy in providing hearing aids for patients with hearing impairments has successfully met their expectations and needs, particularly in terms of service quality. This high level of satisfaction serves as an important indicator in measuring the success of the policy implementation. (Xue et al., 2024).

Based on data analysis results, it can be concluded that this policy has successfully provided a positive impact on patient acceptance, as reflected in good perceptions of the services received, fast waiting times, and high satisfaction levels. This success indicates that the BPJS policy can improve the quality of life for patients with hearing impairments

while also enhancing their social interactions and communication through the use of hearing aids.

SUGGESTION

It is expected that the government, through healthcare facilities, will continue efforts to socialize the implementation of BPJS policies, particularly regarding hearing aids that are partially covered by the government. This will help the public better understand the rules and regulations in place, reducing concerns about utilizing BPJS to obtain the necessary hearing aids for improving patients'

quality of life. BPJS Kesehatan should consider reviewing the subsidy standards for hearing aids to ensure they align with the market prices of decent-quality devices. Expanding the range of hearing aids covered by BPJS would allow patients to choose devices that suit their hearing conditions. Additionally, collaborating with more hearing aid providers would ensure a greater variety of available products with higher quality.

REFERENCES

- Adnan, Y., & Rahmah, N. (2024). The Relationship Of Risk Perception And Interest Of Uin Alauddin Makassar Students In Using Application-Based Telemedicine Services. *Hospital Management Studies Journal (Homes Journal)*, 5(3). <https://doi.org/10.24252/hmsj.v5i3.47764>
- Appau, O., Adade, R., Swanwick, R., Asiamah, S., Fobi, D., Nusinyo Abutiate, C., Kwasi Acheampong, E., Ofori Atta, E., & Money Bright Kwaku, S. (2024). Experiences and expectations of hard of hearing students who use hearing aids. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186x.2024.2397178>
- Azzahra, R. S., Lusiana Anggraini, A., Septiana, W., & Iswanto, A. H. (n.d.). *Agustus 2024 E-ISSN: 2987-4793*. 2(3), 217–229. <https://doi.org/10.59841/anajat.v3i3.1264>
- Bannon, L., Picou, E. M., Bailey, A., & Manchaiah, V. (2023). Consumer Survey on Hearing Aid Benefit and Satisfaction. *Journal of Speech, Language, and Hearing Research*, 66(4), 1410–1427. https://doi.org/10.1044/2022_JSLHR-22-00066
- Bernstein, I. A., & Megwalu, U. C. (2023). Association between insurance status and hearing healthcare use in the United States. *American Journal of Otolaryngology*, 44(6), 103993. <https://doi.org/10.1016/j.amjoto.2023.103993>
- Bonnafoos, S., Margier, J., Bartier, S., Tournegros, R., Tringali, S., & Fieux, M. (2022). Estimated Costs Associated With Management of Otosclerosis With Hearing Aids vs Surgery in Europe. *JAMA Network Open*, 5(2), e2148932. <https://doi.org/10.1001/jamanetworkopen.2021.48932>
- Byun, H., Chung, J. H., Lee, S. H., Kim, E. M., & Kim, I. (2022). Dementia in a Hearing-impaired Population According to Hearing Aid Use: A Nationwide Population-based Study in Korea. *Ear & Hearing*, 43(6), 1661–1668. <https://doi.org/10.1097/AUD.0000000000001249>

- Cho, Y. S., Kim, G.-Y., Choi, J. H., Baek, S. S., Seol, H. Y., Lim, J., Park, J. G., & Moon, I. J. (2022). Factors Influencing Hearing Aid Adoption in Patients With Hearing Loss in Korea. *Journal of Korean Medical Science*, 37(2). <https://doi.org/10.3346/jkms.2022.37.e11>
- Dewi, S., Nadapdap, T. P., Januariana, N. E., Fakultas, M. S., Masyarakat, K., Kesehatan Helvetia, I., S2, D., & Kesehatan, F. (n.d.). *Pengaruh mutu pelayanan kesehatan terhadap kepuasan pasien peserta JKN/KIS di Puskesmas Gunung Tua Kecamatan Padang Bolak*.
- Dwiyovita, R., Etanaulia Marsim, & Yessiana Luthfia Bahri. (2024). Implementation of Social Security Agency on Health (BPJS) Policy in Hospitals: A Systematic Review. *Jurnal Kesehatan*, 237–245. <https://doi.org/10.23917/jk.v17i3.6288>
- Frisby, C., Oosthuizen, I., Manchaiah, V., & Swanepoel, D. W. (2024). Hearing help-seeking, hearing device uptake and hearing health outcomes in individuals with subclinical hearing loss: a systematic review. In *International Journal of Audiology*. Taylor and Francis Ltd. <https://doi.org/10.1080/14992027.2024.2311660>
- Jilla, A. M., Johnson, C. E., & Huntington-Klein, N. (2023). Hearing aid affordability in the United States. *Disability and Rehabilitation: Assistive Technology*, 18(3), 246–252. <https://doi.org/10.1080/17483107.2020.1822449>
- Knoetze, M., Manchaiah, V., Oosthuizen, I., Beukes, E., & Swanepoel, D. W. (2024). Perspectives on Hearing Aid Cost and Uptake for Prescription and Over-the-Counter Hearing Aid Users. *American Journal of Audiology*, 33(3), 942–952. https://doi.org/10.1044/2024_AJA-23-00116
- Laporan Riskesdas 2018 Nasional. (n.d.).
- Lisan, Q., Goldberg, M., Lahlou, G., Ozguler, A., Lemonnier, S., Jouven, X., Zins, M., & Empana, J.-P. (2022). Prevalence of Hearing Loss and Hearing Aid Use Among Adults in France in the CONSTANCES Study. *JAMA Network Open*, 5(6), e2217633. <https://doi.org/10.1001/jamanetworkopen.2022.17633>
- Monica, T., & Suzana, M. (2024). Hubungan Kepuasan Pasien Pengguna BPJS Terhadap Kualitas Pelayanan Kesehatan di Puskesmas Tanah Kampung. *Malahayati Nursing Journal*, 6(9), 3833–3843. <https://doi.org/10.33024/mnj.v6i9.16103>
- Ostrowski, T., & Mouzakes, J. (2022). Financial Distress Experienced By Privately Insured Pediatric Hearing Aid Patients: A Pilot Study. *Clinical Pediatrics*, 61(9), 596–604. <https://doi.org/10.1177/00099228221090362>
- Picou, E. M. (2022). Hearing Aid Benefit and Satisfaction Results from the MarkeTrak 2022 Survey: Importance of Features and Hearing Care Professionals. *Seminars in Hearing*, 43(4), 301–316. <https://doi.org/10.1055/s-0042-1758375>
- Picou, E. M., Wiacek, R., Ricketts, T. A., & Roberts, R. A. (2024). Hearing aid adoption rates among adults without hearing aid experience in an audiology clinic before and after price unbundling. *International Journal of Audiology*. <https://doi.org/10.1080/14992027.2024.2443532>
- Rafa Zemy Amalia, Srisantyorini, T., & Hasanah, I. (2025). Dampak Paparan Kebisingan Lingkungan Kerja Terhadap Gangguan Pendengaran. *Health & Medical Sciences*, 2(3), 15. <https://doi.org/10.47134/phms.v2i3.409>
- Reed, N. S., Garcia-Morales, E., & Willink, A. (2021). Trends in Hearing Aid Ownership Among Older Adults in the United States From 2011 to 2018. *JAMA Internal*

Medicine, 181(3), 383.
<https://doi.org/10.1001/jamainternmed.2020.5682>

Studi, P., Masyarakat, K., & Palembang, S. (n.d.). *Babul Ilmi_Jurnal Ilmiah Multi Science Kesehatan Literatur Review: Kualitas Pelayanan Terhadap Kepuasan Pasien Peserta BPJS Lisneni Dewi*. 13(2), 126. <https://jurnal.stikes-aisyiyah-palembang.ac.id/index.php/Kep/article/view/>

Thai, A., Khan, S. I., Choi, J., Ma, Y., & Megwalu, U. C. (2022). Associations of Hearing Loss Severity and Hearing Aid Use With Hospitalization Among Older US Adults. *JAMA Otolaryngology–Head & Neck Surgery*, 148(11), 1005. <https://doi.org/10.1001/jamaoto.2022.2399>

Tran, E. D., Vaisbuch, Y., Qian, Z. J., Fitzgerald, M. B., & Megwalu, U. C. (2021). Health Literacy and Hearing Healthcare Use. *The Laryngoscope*, 131(5). <https://doi.org/10.1002/lary.29313>

Windmill, I. M. (2022). The Financing of Hearing Care: What We Can Learn from MarkeTrak 2022. *Seminars in Hearing*, 43(04), 339–347. <https://doi.org/10.1055/s-0042-1758400>

Xue, P., Zhao, W., Gao, X., Wei, F., Xu, F., Xie, H., Mao, H., Zou, H., & Qiu, W. (2024). Association of Occupational Noise Exposure and Extended High-Frequency Hearing Loss in Young Workers with Normal Hearing. *Ear and Hearing*. <https://doi.org/10.1097/AUD.00000000000001618>

Yi, J. S., Garcia Morales, E. E., Reed, N. S., Willink, A., & Nieman, C. L. (2022). Racial and Ethnic Differences in Hearing Aid Use Among Medicare Beneficiaries. *Journal of Aging and Health*, 34(6–8), 1117–1124. <https://doi.org/10.1177/08982643221095716>

Zachreini, I., Bashiruddin, J., Zizlavsky, S., Tamin, S., Priyono, H., Dewi Mayangsari, I., Soetjipto, D., Ranakusuma, R., Supartono, N., Alviadi, W., Damayanti, H., Alia, D., Siti Hajar Haryuna, T., Harahap, J., Wanto, N., Fitria, H., Hidayat, B., Yuliet Tamus, A., & Alkadri Hospital Pontianak, M. (n.d.). Novi Primadewi 17 , Muhammad Arif Purwanta 18 , Ashadi Prasetyo 19 , Sagung Rai Indrasari 19. In *Putu Dian Ariyanti Putri* (Vol. 11).