

# »Grandma's Old Tricks« – A Qualitative Study of Lay Persons' Experiences in Treatment and Prevention of Common Cold and Influenza

Asja Čosić Divjak<sup>1</sup>, Goranka Petriček<sup>1,2</sup>, Venija Cerovečki<sup>1,2</sup>, Zlata Ožvačić Adžić<sup>1,2</sup>, Goran Tešović<sup>3,4</sup>, Kathryn Hoffmann<sup>5</sup>

<sup>1</sup>»Zagreb-Centar« Health Centre, Zagreb, Croatia

<sup>2</sup>University of Zagreb, School of Medicine, "Andrija Štampar" School of Public Health, Department of Family Medicine, Zagreb, Croatia

<sup>3</sup>University of Zagreb, School of Medicine, Department of Infectious Diseases, Zagreb, Croatia

<sup>4</sup>Pediatric Infectious Diseases Department, University Hospital for Infectious Diseases "Dr. Fran Mihaljević", Zagreb, Croatia

<sup>5</sup>Medical University of Vienna, Centre of Public Health, Department of General Practice and Family Medicine, Vienna, Austria

## ABSTRACT

*The paper explores lay persons' perception of common cold and influenza as well as their experience in treatment and prevention of those conditions, with emphasis on the reasons impacting their decision towards influenza vaccination. 24 semi-structured, individual interviews were conducted, then transcribed and analysed to find emerging themes and sub-themes. Textual data were explored inductively using content analysis to generate categories and explanations. Five major themes and explanatory models of lay persons' perspective emerged from the data. The participants expressed satisfying knowledge regarding influenza and common cold symptoms, length, transfer and treatment options describing a clear distinction between the two diseases. On the other hand, they mentioned the same general preventive measures for both common cold and influenza, considering influenza vaccination primarily an option for chronic, old or bedridden patients and health workers. Factors facilitating the vaccination decision making process included the recommendation by health professionals (mostly general practitioners), anxiety about influenza and possible complications, existence of chronic diseases and a positive vaccination experience. The main reasons against vaccination stated by participants were the perception of being at low risk for influenza, opinion that vaccination is necessary only for bedridden and old people, chronic patients or health workers, and questionable effectiveness of the vaccine. Participants' influenza vaccination knowledge was insufficient, which should inform further interventions, especially having in mind low vaccination rates. Since participants perceived a general practitioner's recommendation as a crucial factor in forming their positive attitude towards vaccination, practitioners are invited to assess and, when needed, modify inappropriate perception towards influenza prevention during person centred consultations.*

**Key words:** qualitative study, influenza, common cold, lay persons, experience

## Introduction

Respiratory illnesses in primary health care (PHC) amount to 19.6% of all established conditions, most of them being acute respiratory infections<sup>1</sup>. Common cold is a mild, mostly viral self-limiting infectious disease of upper respiratory tract occurring 3–5 times a year in adults and in children up to 10 times<sup>2,3</sup>. Influenza (the flu) is an acute respiratory infection primarily caused by influenza viruses, usually more severe than the cold<sup>2</sup>. It occurs worldwide with epidemic outbreaks every 2–3 years and

a yearly incidence of 10–20%, resulting in increased number of PHC consultations, substantial work and school absence as well as increased socioeconomic burden<sup>2,4–7</sup>. It is recognized that understanding patient's perspectives towards their illness may improve the effectiveness of care<sup>8</sup>. Still, little is known about lay persons' perceptions of prevention and treatment of common cold and influenza. Since influenza vaccination rates remain low, it is important to elicit patient's perception regarding vaccination,

the only effective prevention method<sup>3,9</sup>. In this view, this paper explores lay persons' perception of common cold and influenza, their experience in treatment and prevention of those conditions with emphasis on the reasons impacting their decision regarding influenza vaccination. Understanding patients' concept of common cold and influenza may increase possibilities for individually tailored family medicine patient consultations and allow for more effective actions, resulting in improved quality of health care.

## Subjects and Methods

### Study design

Study design presented in this article originates from the comparative qualitative exploratory study conducted in Austria, Belgium and Croatia. The Croatian national data were collected from March to July 2016 after obtaining the Research Ethics Committee of the “Zagreb-Centar” Health Centre's approval. Qualitative methodology was applied to provide better understanding of persons' beliefs and behaviour generating reliable data regarding our research aims<sup>10</sup>.

Six general practitioners (GPs) were conveniently selected from “Zagreb-Centar” Health Centre (three from urban and three from suburban area of Zagreb), each of which recruited four patients from their list, using purposive sampling, snowball technique and following inclusion criteria: lay people, aged  $\geq 18$  years, physically/psychologically capable of participating in the study, speaking the respective country language and living in urban/suburban area of Zagreb. Health professionals were excluded from participating in this study. Participants were contacted by their GP, informed about the purpose of the study as well as its study design and invited to participate. Only one participant refused over time shortage and was replaced by another patient from the respective doctor's patient list.

### Data collection

Semi-structured, individual interviews were performed using an interview guide with three open-ended questions: individual's perception of common cold and influenza per se, their differences and the experience of common cold and influenza prevention and treatment. The questions were developed from the literature base by the fourth author (KH). The first author (ACD) carried out all interviews. Recorded interviews lasted from 20 to 30 minutes and were transcribed verbatim. All 24 transcripts met Kvale's quality assurance criteria<sup>11</sup> and were used for the analysis.

### Data analysis

Textual data are typically explored inductively using content analysis to generate categories and explanations<sup>12–14</sup>. The coding process was guided by the research question, the first step was open coding, followed by the codes categorization to create themes and sub themes lead-

ing to an explanation. At about the 19th interview content saturation had been reached<sup>12</sup>. The analysis resulted in five major themes and explanatory models of participants' perspective.

The analysis was initially done by the first author (ACD). In parallel, a group of three investigators (ZOA, VC, GP) individually and then in a group analysed all 24 interviews reaching a consensus. Finally, the first author and her mentor (ACD, GP) compared her results with those of the group. The final results represent consensus among all four investigators (the investigator triangulation method<sup>12</sup>).

## Results

### Participant characteristics

Out of 24 participants, 14 were male (14/24) and 10 female (10/24). The average age was  $47.8 \pm 4.2$  (M $\pm$ SD). Equal number of participants completed secondary (11/24) and higher level of education (11/24), while two participants completed primary school only (2/24) (Table 1).

Five major themes and explanatory models of lay persons' perspective emerged from the data: 1) Perception of common cold; 2) Prevention and treatment of common cold; 3) Perception of influenza; 4) Prevention and treatment of influenza; 5) Common cold versus influenza.

**TABLE 1**  
SAMPLE STRUCTURE

| Participants' characteristics |                         | Number of participants |
|-------------------------------|-------------------------|------------------------|
| Age                           | 18–30                   | 9                      |
|                               | 31–45                   | 2                      |
|                               | 46–60                   | 4                      |
|                               | 61–75                   | 7                      |
|                               | 76+                     | 2                      |
| Gender                        | female                  | 10                     |
|                               | male                    | 14                     |
| Educational level             | primary                 | 2                      |
|                               | secondary               | 11                     |
|                               | higher education/degree | 11                     |
| Area of residence             | urban                   | 13                     |
|                               | suburban                | 11                     |
| Influenza vaccination         | yes                     | 5                      |
|                               | no                      | 19                     |

### Perception of common cold

The majority of participants considered common cold to be a mild disease that does not greatly affect their everyday lives. Participants stated that they get common cold several times a year, lasting 3–4 days to one week with following symptoms: sneezing, nasal congestion, sore throat, cough, no/moderate fever, mild headache, and fa-

tigue. They described possible ways of contracting common cold, mostly while being transmitted via aerosol (contact with an infected person). Some of them distinctly stated that viruses (7/24) and bacteria (3/24) caused common cold. They also pointed at a considerable impact of external circumstances on contracting this disease, such as seasons interchange, lower environmental temperatures and winds/drafts, and they emphasized their own responsibility (inappropriate wardrobe, cold foods/drinks) along with the importance of their own immune system (Table 2).

**Prevention and treatment of common cold**

Most participants showed awareness of the importance of common cold prevention. They highlighted the need to strengthen individuals' immune system with vitamin rich foods (fruits/vegetables) and vitamin supplements. Adequate clothing; avoiding drafts; personal hygiene (hand washing); physical fitness and avoiding larger groups of people were also mentioned. In contrast, a quarter of participants considered their body capable of resisting illness unaided.

Almost all participants stated they could care for their cold by themselves, rarely needing professional medical help (unless it lasted longer than expected or caused high fever). Among self-treatment measures all participants stressed the importance of rest and home remedies (teas made of chamomile, sage, mint or rosehip with honey and lemon). A minority of participants mentioned other remedies, such as ginger, garlic, onion, and schnapps with pepper, sauerkraut, red/smoked meat, horseradish, radish, warm soups, marshmallow root, and fried sugar). For lowering body temperature participants mentioned physical methods (lukewarm/cold showers, alcohol (schnapps)/vinegar/potato compresses) along with medicines (ibuprofen/paracetamol). To alleviate

breathing troubles and sore throat they applied vinegar/alcohol (schnapps) compresses and tiger balm on their chest. For nasal congestion, saline, marshmallow root/sea water solution was used. The majority also stated using OTC drugs (paracetamol, decongestants, expectorants and cough syrups) to reduce symptoms and shorten illness duration. The source of self-help information was mainly word of mouth (family, friends) together with media (newspapers/magazines, television, Internet). Treatment of common cold during participants' childhood mostly took place at their parental homes with homemade remedies and methods applied by their mothers and grandmothers (Tables 3a–3b).

**Perceptions of influenza**

Most participants experienced influenza as a serious, "terrible illness which strongly alters everyday functioning" (1F, age 76). They described the following symptoms of influenza: high fever (>38 C to 40 C), strong headache, bone/muscle aches and heavy/persistent cough. Rarely mentioned symptoms were: appetite loss, exhaustion, sore throat, nausea, vomiting, sweating, sniffles, nasal congestion, diarrhoea and lacrimation (Table 4).

**Prevention and treatment of influenza**

For influenza prevention, almost all participants mentioned the same measures as for the cold (avoiding crowds/infected individuals, personal hygiene, adequate weather wear, healthy diet, avoiding cold and exercising). Although most of them knew about the influenza vaccination, only a minority got vaccinated (5/24). The main reasons against vaccination were: perception of being at low risk for influenza; opinion that vaccination is necessary only for certain risk groups (bedridden/old people, chronic patients, health workers); and questionable vaccine effectiveness. Other reasons included perceived low infection severity; lack of

**TABLE 2**  
PERCEPTION OF THE COLD

|                                |  |
|--------------------------------|--|
| Illness severity               | "... It's not especially dangerous. When you get a cold, you get a mild fever, sniffles and you feel a bit weaker..."(M6, age 21)  |
|                                | Type of infection (viral/bacterial)  |
|                                | "Trough viruses mostly. By sneezing, coughing, sniffing; by touch, but mostly via aerosol." (3F, age 45)   |
|                                | Contact with an infected individual  |
|                                | "When others that have a cold transfer it to you that means when it is in the air, so to speak... trough little droplets..." (9M, age 26)  |
| Cause                          | External circumstances   |
|                                | "...it could be if you were outside in the cold poorly dressed, it could be that during stress and untoward circumstances your immunity drops shortly and you get a cold"(12M, age 29)                                   |
|                                | Personal factors/ responsibility   |
|                                | "That is basically your personal fault. Let's say you take a bath and then go to a room with inadequate temperature or go outside, the wind catches you... you are not careful and you do it to yourself." (10M, age 83) |
| Symptoms                       | "... symptoms of rhinitis, sneezing, sore throat, swallowing difficulties, slightly raised body temperature, mild muscle soreness, headache" (M11, age 49)   |
| Duration                       | "Again, it depends from person to person. Sometimes it lasts for two or three days, and sometimes for four or five." (17M, age 63)   |
| Personal experience/ incidence | "I think I get cold four or five times a year (6M, age 21)   |

**TABLE 3A**

PREVENTION OF THE COLD

|  |  |
|--|--|
| Strengthening immune system                              | <i>"Well, since I'm constantly in contact with children who are having a cold, most often I prepare myself a lemonade at home, or I buy effervescent vitamin C tablets ..."</i> (3F, age 45) |
| Avoiding larger groups of people                         | <i>"I try not to get in contact with someone sick, if someone home is sick, we don't really hug and kiss."</i> (7F, age 29)  |
| Adequate weather wear, avoiding drafts/cold temperatures | <i>"I dress according to the weather conditions, and I take care not to get in weather-temperature 'traps'"</i> (10M, age 83)  |
| Personal hygiene   | <i>"I wash my hands often; I don't touch something someone with a running nose touched..."</i> (7F, age 29)  |
| Physical activity  | <i>"... person's general fitness, body constitution, maintaining physical fitness, in my opinion that is most important."</i> (4M, age 70)   |
| Don't do anything  | <i>"I don't protect myself in any way. As God decides."</i> (20M, age 40)  |

**TABLE 4**

PERCEPTIONS OF INFLUENZA

|                               |  |
|-------------------------------|--|
| Illness severity              | <i>"You stay in bed for a week because of it, if it prolongs it is a problem. Because it can lead to pneumonia in the end."</i> (13F, age 24)    |
| Cause                         | <i>"I'm pretty certain that the flu can be a viral infection... through a contact with an infected individual."</i> (8M, age 29)                 |
| Symptoms                      | <i>"So, high fever, your whole body aches, nausea, weakness, sore throat, everything to the tenth power compared to the cold."</i> (15M, age 50) |
| Duration                      | <i>"The flu lasted, that certainly, at least twelve days."</i> (1F, age 76)  |
| Personal experience/incidence | <i>"A real flu, I had it three times in my life. That's a terrible disease for me!"</i> (1F, age 76)   |

time; insufficient vaccine knowledge; forgetfulness; boosting immune system by overcoming influenza; and parental decision not to vaccinate their children. To the contrary, reasons for vaccination were: health professionals' recommendation (mostly GPs); fear of influenza/complications; chronic diseases; and positive experience with vaccination so far.

A considerable number of participants declared influenza a self-treatable disease, while only a minority believed it required doctor's consultation. Regarding self-care, participants mentioned: pharmacological treatment (OTCs: antipyretics, decongestants); physical methods (lukewarm showers, water/alcohol compresses) and natural remedies (tea, honey, lemon, schnapps, garlic, caramelized milk). A minority stated influenza had to be treated with antibiotics (6/24), while only two stated specifically that "it cannot be treated with antibiotics, as it is a viral infection" (6M, age 21). Some stated that influenza required a medicine but could not remember which one (5/24) (Tables 5a–5b).

**TABLE 3B**

TREATMENT OF THE COLD

|   |  |
|---|--|
| Professional help usually not necessary | <i>"... a condition that can usually pass without doctor's help and without special medication, except drugs like Aspirin, decongestants and there it is."</i> (11M, age 49)   |
| Self-treatment with natural remedies    | <i>"When I get a cold, I again regularly take vitamin C, meaning lemon, oranges, or that powdered vitamin C, a lot of tea, a lot of honey and scarves, caps, all that will prevent any wind or cold to get through to me."</i> (13F, age 24)   |
| Use of OTC medicines                    | <i>"Except for the fever, when I get it, some ibuprofen or diclofenac. And sometimes some spray for the nose when it needs to be decongested or Sinusan (Japanese peppermint essential oil) and something like that. Some pastilles for the throat like Strepsils. And I drink teas."</i> (6M, age 21) |
| Source of information                   | <i>"...I have read both the first and the second on the Internet. Or the things you hear at home, from your parents, friends and so. Grandma and grandpa always have some old tricks."</i> (21M, age 23)   |
| Cold in childhood                       | <i>"Also using tea. And if it was severe throat soreness then my mom used to prepare schnapps compresses for me. And that's it. Schnapps compresses, tea, rest, no school."</i> (7F, age 29)   |

**TABLE 5A**

PREVENTION OF INFLUENZA

|  |  |
|--|--|
| Strengthening immune system                              | <i>"Well, the same way, I guess, like against the cold. Diverse nutrition, sports life."</i> (15M, age 50)   |
| Avoiding larger groups of people                         | <i>"I avoid having contact with people I know have the flu, that's for sure."</i> (2F, age 20)   |
| Adequate weather wear, avoiding drafts/cold temperatures | <i>"... Dressing appropriately, so you're comfortable, not too hot or too cold. That's how I prevent the flu."</i> (10M, age 83)   |
| Personal hygiene   | <i>"When it's flu season... I wouldn't want to get infected, so I wash my hands because I know I'll touch my face later."</i> (2F, age 20)   |
| Physical activity  | <i>"It's like I told you, it's about maintaining your general health, physical health above all..."</i> (4M, age 70)   |
| Don't do anything  | <i>"I don't do anything to protect myself, not even vaccination"</i> (20M, age 40)   |
| Vaccination  | Reasons for vaccination<br><i>"... especially if you're retired and older like I am, my GP recommended vaccination and I do it every year"</i> (10M, age 83)<br><i>"I heard there were vaccines, but it's mostly for older people and people who work in health care, they are much more in contact with persons that have the flu"</i> (9M, age 26) |
|  | Reasons against vaccination<br><i>"I think I'm not susceptible to flu and I don't have to get vaccinated..."</i> (4M, age 70)<br><i>"Ultimately, I believe vaccines against viral infections to be quite ineffective... I think it's better to boost your immune system, than get vaccinated."</i> (13F, age 24)                                     |



TABLE 5B

## TREATMENT OF INFLUENZA

|                                    |  |
|------------------------------------|--|
| Use of OTC medicines               | <i>"... I took drugs... ibuprofen combined with paracetamol or whatever is some kind of antipyretic..." (3F, age 45)</i>   |
| Physical methods and home remedies | <i>"...Teas, as well, and when I had a high fever, I used to put on compresses. I read somewhere that it's good, when you have a fever, to shower in lukewarm water. I did even that." (1F, age 76)</i>  |
| Requires a visit to the doctor     | <i>"Sadly, if it gained momentum, it has to be treated with injections...I believe your doctor does that. And if the doctor thinks it's necessary, he can send you to the hospital..." (10M, age 83)</i>   |
| Requires medicines/antibiotics     | <i>"...from my GP. I think those were some kind of antibiotics, very big pills anyhow, you would take them once a day ..." (14F, age 26)</i>   |
| Source of information              | <i>"You go to the doctors, he advises you to take fluids, lemon and vitamin C, to boost your immune system...also I read in the papers, saw on TV, in different magazines, it's good to eat lots of garlic, cheese and read meet..." (17M, age 63)</i> |

**Common cold versus influenza**

Participants clearly distinguished common cold and influenza explaining influenza as a serious condition, which lasts longer and damages one's immune system. Influenza interrupts individual's everyday activities and requires bedrest, whereas cold has little effect (e.g. on their ability to work). In relation to professional medical help, certain number of participants required GPs consultation regarding influenza, while that was not the case with the cold. Also, they stated complications appeared more often with influenza (e.g. pneumonia).

Most of the participants declared using same preventive measures for both of these conditions (strengthening immune system/avoiding contact with infected people). Although they were well informed about the option of influenza vaccination, only chronic and older patients got vaccinated (Table 6).

**Discussion**

A clear distinction between common cold and influenza was described regarding disease severity, effect on everyday functioning, immune system, duration, need for professional medical help and possible complications. Common cold was considered a mild illness that does not really affect participants' everyday lives, while influenza was recognized as a serious illness, greatly impacting everyday functioning. The majority of our respondents had satisfying knowledge about both common cold and influenza symptoms, length, treatment options as well as general prevention measures. Although these conditions were not explicitly referred to as contagious diseases, our results clearly show participants' understanding of cold and influenza transmission. Only a few of our participants asked for medical care when having influenza, believing GP would provide treatment to reduce illness duration

TABLE 6

## COLD VERSUS INFLUENZA

|  |  |
|--|--|
| Severity                                       | <i>"Generally, it affects people a bit more. I feel that, people, women in particular, when having a cold, they normally carry on, while the flu, it really levels everyone." (13F, age 24)</i>  |
| Duration                                       | <i>"...everything, like to the tenth power compared to the cold. And it lasts longer..." (15M, age 50)</i>   |
| Effect on immune system                        | <i>"I think my immune system was weakened after the flu and I got the mumps afterwards." (22M, age 56)</i>   |
| Effect on everyday functioning/work attendance | <i>"Anyhow, I felt like someone had beaten me. Such a weakness I really couldn't go anywhere, not even to work." (7F, age 29)</i>  |
| Require professional medical attention         | <i>"... I went to the doctors. I think she prescribed antibiotics once or twice. But I didn't have the flu that often." (7F, age 29)</i><br><i>"(cold is)... a condition that can usually pass without doctor's help and without some special medication..." (11M, age 49)</i> |
| Possible complications                         | <i>"I ignored once a milder form of the flu. I had a fever, went to work ... Afterwards there was this cough and it turned out to be pneumonia. There, that's one bad experience, what happens if you don't rest." (16F, age 61)</i>   |
| Preventive measures                            | <i>"Well, the same way I protect myself against the cold, I guess. Diverse nutrition, sports life." (15M, age 50)</i>  |

while most of them implemented self-care treatment for both cold and influenza, considering GP visits unnecessary, unless symptoms were more severe or lasted longer than expected. Similarly to this, Vingilis et al. in a survey of Cold/Flu Knowledge, Attitudes and Health Care Practices in Canada have shown that the majority of their respondents had good knowledge levels about causes, contagion, length of and lack of cures for colds and influenza, along with appropriate physician visits<sup>5</sup>. Contrary to our findings, in a study of representations of influenza and influenza-like illness among French population by Cedraschi et al, reasons for physicians' visits were diagnosis verification and confirmation of the need for interruption of activities, although participants felt the physician could not do more than they had already done<sup>15</sup>. This difference in need for physicians' consultation could be explained by the strong PHC with long tradition and good organization in both Canada and Croatia<sup>16,17</sup>.

Despite vaccination being the only effective method for influenza prevention<sup>3</sup>, most of our participants emphasized only general preventive measures for both common cold and influenza, considering influenza vaccination an option only for chronic, old/bedridden patients or health workers. The reasons for vaccination among those who got vaccinated were: recommendation of health professionals (GPs mostly), fear of influenza/possible complications, being a chronic patient and positive vaccination experience. Other studies also found that, in addition to physician recommendation as a crucial facilitator<sup>9,18–20</sup>, high levels of anxiety<sup>21,22</sup>, perception of the disease, age and health

conditions<sup>9,18,23,24</sup> also played an important role. Main reasons against vaccination in our study are in accordance with several studies which explored patients' attitudes towards vaccination: questionable vaccine effectiveness<sup>9,25–27</sup>; perception of being at low risk for influenza<sup>9,28</sup>; perceived low severity of the infection, lack of time or information<sup>28</sup>; forgetfulness<sup>29</sup> as well as negative beliefs about vaccine consequences<sup>30</sup>. However, our participants highlighted that vaccination is necessary for certain risk groups (bedridden/old people, chronic patients and health workers), which is partly similar to the category “frail people” defined by Cedraschi et al.<sup>15</sup>. Rubinstein pointed out the importance of personal belief affecting behaviour regarding vaccination (eating healthily/exercising confers immunity regarding influenza presenting a possible barrier for vaccination) which is consistent with our findings<sup>21</sup>.

This study has several limitations. The sample was GP dependent, which made it difficult to recruit participants with wider characteristics such as those not regularly coming to GPs. Maybe that group would have different ideas about the topics of the interview. Secondly, among our participants, those with higher educational level slightly prevail. Data analysis did show considerable similarity of main representation dimensions, but still, we cannot assume that other themes would not arise in other localities, cultural groups or socioeconomic circumstances. Given that data saturation was reached and no new themes emerged, this study may help highlight some issues that are relevant to general population's common cold and influenza perception.

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## Conclusions

Our study participants expressed satisfying knowledge regarding common cold and influenza symptoms, treatment and prevention of common cold. There was insufficient influenza vaccination knowledge, which should direct further interventions, having in mind low vaccination rates<sup>31</sup>. Similarly to conclusions drawn by Rubinstein et al, in shaping participants decisions regarding vaccination, their family as well as their GPs played more important roles than media prevention campaigns<sup>21</sup>. This knowledge and understanding could be especially helpful to GPs considering a long tradition of PHC in Croatia, their gate-keeping position and continuing physician-patient relation<sup>17</sup>. GPs have an opportunity to elicit, assess and, if needed, modify inappropriate behaviour towards influenza vaccination through everyday patient consultations. Furthermore, they could also contribute to general knowledge of the population under their care, possibly even affecting younger generations whose opinions would be formed through their families.

Seeing that each participant's experience is different and profoundly set in the cultural context, there is a need for future research regarding this topic among different population groups and in different settings.

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A. Č. Divjak

»Zagreb-Centar« Health Center, Remetinečki Gaj 14, Zagreb, Croatia

e-mail: asja.cosic@gmail.com

## LIJEČENJE I PREVENCIJA OBIČNE PREHLADE I GRIPE – MIŠLJENJA PACIJENATA

### SAŽETAK

Cilj ovog rada bio je istražiti kako opća populacija doživljava običnu prehladu i gripu te koje je njihovo iskustvo s liječenjem i prevencijom tih bolesti s posebnim naglaskom na razloge koji utječu na stav prema cijepljenju. Provedena su 24 polustrukturirana individualna intervjua koji su snimani, učinjen je transkript snimljenog materijala te induktivna analiza sadržaja tekstualnih podataka u svrhu generiranja kategorija i objašnjenja. Kvalitativnom analizom podataka dobiveno je pet glavnih tema i objašnjenja perspektive ispitanika. Većina ispitanika u ovom istraživanju pokazala je zadovoljavajuću razinu znanja o simptomima, trajanju, prijenosu i liječenju obične prehlade i gripe te opisala jasnu razliku između te dvije bolesti. Nasuprot tome, većina ispitanika nije razlikovala mjere prevencije gripe i obične prehlade. Cijepljenje protiv gripe smatrali su potrebnim isključivo za starije i nepokretne osobe, kronične bolesnike i zdravstvene djelatnike. Čimbenici koji pozitivno utječu na odluku o cijepljenju bili su preporuka zdravstvenih stručnjaka (uglavnom liječnika obiteljske medicine), strah od gripe i mogućih komplikacija te pozitivno dosadašnje iskustvo s cijepljenjem. Razlozi protiv cijepljenja bili su percepcija niskog rizika za gripu, stav da je cijepljenje namijenjeno samo starijim i nepokretnim osobama, kroničnim bolesnicima i zdravstvenim djelatnicima te upitna učinkovitost cjepiva. S obzirom na nezadovoljavajuće znanje ispitanika o cijepljenju protiv gripe, u cilju povećanja odaziva na sezonsko cijepljenje, liječnici opće/obiteljske medicine u mogućnosti su procijeniti i, ukoliko je potrebno, modificirati neadekvatne stavove o prevenciji gripe primjenjujući personalizirane konzultacije tijekom svakodnevnog rada sa svojim pacijentima.

