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Adriana Solovei and Bas van den Putte*

The effects of five public information campaigns: The role of interpersonal communication

Abstract: For five Dutch public information campaigns, this study assessed whether interpersonal communication mediated the effects of exposure (to TV, radio, or online banners) on five persuasive outcomes: awareness, knowledge, attitude, intention, and self-reported behavior. Structural equation modeling was used to test 23 models relating exposure to one of these outcome variables. Few direct effects of media exposure were found (for online banners, TV, and radio in, respectively, one, four, and seven of the 23 models). In contrast, results revealed that interpersonal communication had direct effects on the outcomes in 17 of the 23 models. Moreover, indirect effects of media exposure via interpersonal communication were found for online banner, TV, and radio exposure in, respectively, eight, nine, and ten models. These results indicate that interpersonal communication plays an important role in explaining media exposure persuasive effects and should be taken into account in the development and evaluation of public information campaigns.

1 Introduction

Public information campaigns (PICs) are important policy tools used by governments worldwide (Rice and Atkin, 2012). PICs refer to government-sponsored communication efforts, typically aiming at shaping beliefs, attitudes, social norms and actual behaviors in (a segment of) the mass public (Weiss and Tschirhart, 1994). To evaluate the effectiveness of PICs, the theoretical principles

*Corresponding author: Bas van den Putte, Amsterdam School of Communications Research ASCoR, University of Amsterdam, Amsterdam, The Netherlands,
E-Mail: S.J.H.M.vandenputte@uva.nl
Adriana Solovei, Care and Public Health Research Institute CAPHRI, Department of Health Promotion, Maastricht University, Maastricht, The Netherlands,
E-Mail: a.solovei@maastrichtuniversity.nl

of the communication/persuasion matrix (McGuire, 1985) are often used (Rice and Atkin, 2012). In line with this matrix, in the development of PICs, *input* variables are selected (i. e., message, source, channel, and audience variables) which influence the receivers' responses or the so-called *output* variables. For our paper, from the McGuire matrix we selected awareness, knowledge, attitude, intention, and behavior, which were all objectives of the Dutch PICs evaluated. Regarding the input variables, we concentrated on channel variables (i. e., television, radio, and online advertising). In addition, we included the role of interpersonal communication.

Published evidence regarding the effectiveness of PICs is mixed. Early researchers thought that PICs had limited persuasive effects, explained, among others, by individuals' tendency to seek information in line with their existing attitudes or those of the larger proportion of the population, which are hard to reach by campaigns (Hyman and Sheatsley, 1947; Klapper, 1960). Later, however, researchers argued that the effects of PICs are moderate, rather than limited, and that media exposure works differently in different circumstances and for different people (Maibach, 1993; O'Keefe, 1985). For example, in health communication, some campaigns were found to have positive effects on persuasive outcomes (Palmgreen, Donohew, Lorch, Hoyle, and Stephenson, 2001), whereas others had no effects (Hornik, Jacobsohn, Orwin, Piesse, and Kalton, 2008) or even negative effects (Snyder and Blood, 1992). In light of these differences, researchers have often argued for the importance of investigating possible mechanisms that may explain media exposure effects (Jeong and Bae, 2018; Hornik and Yanovitzky, 2003; Weiss and Tschirhart, 1994). Reviews of campaign effects have highlighted a number of moderators that influence campaign effectiveness, for example, campaign topic (Snyder et al., 2004; Wakefield, Loken, and Hornik, 2010).

In addition, researchers deemed it necessary to examine both the indirect and direct effects that the media can have on the public. (Wakefield et al., 2010) An important concept suggested in this regard is interpersonal communication (Southwell and Yzer, 2007; Weiss and Tschirhart, 1994). Indeed, a meta-analysis of the effects of interpersonal communication in the context of health campaigns showed that conversations had significant effects on knowledge, intention, and behavior (Jeong and Bae, 2018). However, this meta-analysis did not examine the extent to which the interpersonal communication was campaign-generated or spontaneous. Also, few individual studies explored both paths of the mediating role, from exposure to conversations and from conversations to campaign-relevant outcomes. Moreover, there is a paucity of studies assessing the (mediating) role of interpersonal communication in the persuasiveness of media exposure to PICs focusing on topics other than health communication. A reason for this lack of studies may be that interpersonal communication is seldom structurally assessed

in the evaluation of PICs (Southwell and Yzer, 2007). To cover this research gap, we focused in our study on the role of interpersonal communication in the context of government-directed PICs that did not address health topics. These PICs were conducted in 2013 in the Netherlands, using various offline and online media channels, and primarily focused on behavior change or behavior maintenance among the general Dutch population regarding interventions initiated and coordinated by the Dutch government. The aim of our study was to assess whether interpersonal communication mediated the effects of three media channels (TV, radio, and online banners) on five persuasive outcomes: awareness, knowledge, attitude, intention, and (self-reported) behavior.

2 Theoretical background

In this paper, we defined interpersonal communication as conversations between two or more people, face to face, on the telephone or online, regarding a PIC topic (for other definitions of interpersonal communication, see Southwell and Yzer, 2007). As said above, it has often been argued that media messages, besides having direct effects on audiences, are also indirectly conveyed to these audiences through interpersonal communication. Assessing this mediating role of interpersonal communication in PICs is of importance because this may help explain differences in media effects found between campaigns, as interpersonal communication may strengthen (Berner, Leiber, Kriston, Stodden, and Günzler, 2008) as well as weaken (David, Cappella, and Fishbein, 2006) effects of campaign exposure. That interpersonal communication may mediate the effects of media exposure on persuasive outcomes is hypothesized by various theoretical models related to media effects, such as the two-step flow of information (Katz and Lazarsfeld, 1955) and the diffusion of innovations (Rogers, 2003). For example, the two-step flow of information model posits that attitude change may happen when receivers of information further disseminate the ideas of a campaign to other people. In light of this, Hornik and Yanovitzky (2003) argued for the inclusion of interpersonal communication in the evaluation of PICs. If interpersonal communication plays a mediating role in the effects of media exposure to PICs, then it cannot be ignored.

For a long time, most papers researching interpersonal communication in campaigns mostly looked at media exposure and interpersonal communication separately, aiming to compare which of them had stronger persuasive effects (e. g., Korhonen, Uutela, Korhonen, and Puska, 1998; Rimal, Flora, and Schooler, 1999). However, examining the direct effects of interpersonal communication did

not fully capture the roles that interpersonal communication may take in PICs. A few more recent papers started investigating the mediating role of interpersonal communication and found promising results. In the context of smoking cessation campaigns, both van den Putte, Yzer, Southwell, de Bruijn, and Willemsen (2011) and Jeong, Tan, Brennan, Gibson, and Hornik (2015) showed that interpersonal communication mediated the effect of media exposure on intention to quit smoking and cessation attempts.

Yet, to our knowledge, the role of interpersonal communication in non-health-related PICs has not been empirically tested. It is important to further investigate whether interpersonal communication mediates the media exposure effect in PICs because this might increase insight into the process that explains campaign effects. Besides adding to the general body of empirical evidence regarding the mediating role of interpersonal communication, if such a role is found in more types of PICs, it may prove wise for practitioners to take the interpersonal communication component into account when developing and evaluating PICs. For example, it may be the case that media exposure incites discussion about the campaign topic with others (Southwell and Yzer, 2007). In turn, these interpersonal conversations may stimulate change in (predictors of) the promoted behavior because the message of the campaign becomes more salient and campaign arguments are more deeply processed and might be supported (or not) by the social environment (Mosler and Martens, 2008). In this way, through conversations, the total effects of media exposure may become stronger. As noted, this may be in a direction that supports or opposes the campaign goals, depending on the content of the interpersonal communication.

Based on the above-mentioned arguments concerning the potentially relevant role of interpersonal communication regarding the effects of media exposure, we tested whether exposure to PIC media messages increased the amount of interpersonal communication about the topic of the PIC, and whether this subsequently influenced persuasive outcomes. As indicated above, in our paper we focused on five outcome variables of PICs: awareness, knowledge, attitude, intention, and self-reported behavior. These outcomes are based on the communication/persuasion matrix of McGuire (1985), and are regularly used in the evaluation of PICs in the Netherlands. The media channels included are TV, radio, and online banners, because these three media were used in all five campaigns that we evaluated to test the role of interpersonal communication. Some campaigns employed additional media such as newspaper advertising (three campaigns) or outdoor advertising (two campaigns). In additional analyses we included these media for those campaigns, but this did not change the conclusions presented below.

3 Method

Design and sample

We performed a secondary data analysis on two-wave data sets collected by the Dutch research agency KANTAR TNS on behalf of the Dutch Ministry of General Affairs, and kindly provided to us by the Public Information and Communications Service (DPC) on the condition that the names of the campaigns would remain confidential. The questionnaires were answered by members of the research agency online panel of respondents.

The effects of five public information campaigns carried out in the year 2013, referred to as campaigns A, B, C, D, and E, were examined. All five campaigns employed TV, radio, and online banners (further referred to as *banners*) as their primary channels. Awareness, knowledge, attitude, intention, and self-reported behavior were measured as outcome variables at two waves, before (Wave 1) and after (Wave 2) each campaign. Both waves were generally about one to three months apart.

Wave 1 was answered by, respectively, 636 (campaign A), 1050 (B), 1044 (C), 684 (D), and 857 (E) respondents. Wave 1 and 2 were answered, respectively, by 478 (A, 75.2 %), 489 (B, 46.6 %), 810 (C, 77.6 %), 311 (D, 45.7 %), and 683 (E, 79.7 %) respondents. Due to missing values on at least one of the variables used in our models, between 0 and 31 respondents per campaign were lost. There were between 47.4 % and 50.8 % female respondents in the five campaigns, and the average age varied between 39.9 and 52.1 years (SD between 17.3 and 21.8).

Measures

The measurements were developed by DPC for the purpose of evaluating Dutch governmental campaigns. To keep the campaign topics confidential, we are unable to reveal the exact wording of the measurement items. All variables were measured at Wave 1 and 2 except media exposure, which was only measured at Wave 2. Media exposure variables of TV, radio, and banner were measured dichotomously (0 = *No*, 1 = *Yes*) and asked whether the respondent had seen the campaign in each of these three media channels in the last few weeks. Interpersonal communication was measured as a dichotomous variable (0 = *No*, 1 = *Yes*) and asked whether the participants talked about the topic of the campaign with other people in the last month. Awareness was measured as a dichotomous variable (0 = *No*, 1 = *Yes*) and asked whether the participant was aware of the topic of the

campaign. Knowledge was measured by between two and nine items, specific to the topic of each campaign. Most knowledge items had the *true – not true* format, but a few had more answer categories. For each campaign, the percentage of correct answers was calculated. Attitude was measured on 5-point Likert scales, coded from 1 to 5 (Cronbach's alpha = .84 or higher) and referred to the respondent's positive or negative overall evaluation of the campaign message. Intention was measured on one 5-point Likert scale, coded from 1 to 5, and referred to the respondent's wish to perform the main behavior promoted in the campaign. In campaign E, intention was measured on a 4-point Likert scale. For all campaigns, behavior was self-reported and measured as a dichotomous variable (0 = *No*, 1 = *Yes*). It referred to whether the respondent did or did not engage in the behavior promoted in the campaign.

Model specification

Campaigns were analyzed separately with a similar path model, depicted in Figure 1, using AMOS 21. All variables in the model were included as observed variables. Each model tested the direct effects of exposure to campaign messages on TV, radio, and banners on interpersonal communication about the campaign and one of the five outcome variables as measured at Wave 2 (awareness, knowledge, attitude, intention, and self-reported behavior), controlling for baseline scores of the dependent variables as measured at Wave 1. Campaigns D and E did not assess awareness as an outcome variable. Also, in campaigns C and D intention was not measured as an outcome variable at Wave 2 but only as a baseline predictor of Wave 2 behavior (because there was no baseline measurement of behavior). Campaigns C and D promoted two target behaviors, which were tested in separate models. In total, 23 models were tested. Each model also tested the mediated effects via interpersonal communication of media exposure to each of the three media channels on the five outcome variables. To test the indirect effects, bootstrapping was performed to obtain 95 % bias-corrected confidence intervals based on 5,000 bootstrap iterations. This allowed assessment of whether interpersonal communication acted as a mediator in the relationship between media exposure and the five persuasive outcomes. In case of multivariate non-normality (kurtosis > 5 in seven of the 23 models), *p*-values of direct effects were based on bootstrapped 95 % bias-corrected confidence intervals (Byrne, 2010). In the analyses for attitude, four campaigns showed four to seven outliers that were removed. The exogenous variables (i. e., interpersonal communication and outcome variable as measured at Wave 1) were allowed to correlate freely. Also, correlations were added between the three media exposure

variables (i. e., TV, radio, and banner). The model fit was evaluated using three indicators: Chi-Square (p-value should be < .05), RMSEA (should be smaller than .05) and CFI (should be higher than .95). Ten models (in campaign A, B, C, and D) had significant Chi-square values. However, all models had an acceptable fit based on RMSEA (between 0.00 and 0.08) and CFI (between .95 and 1.00), so we concluded that our models had an acceptable fit to the data.
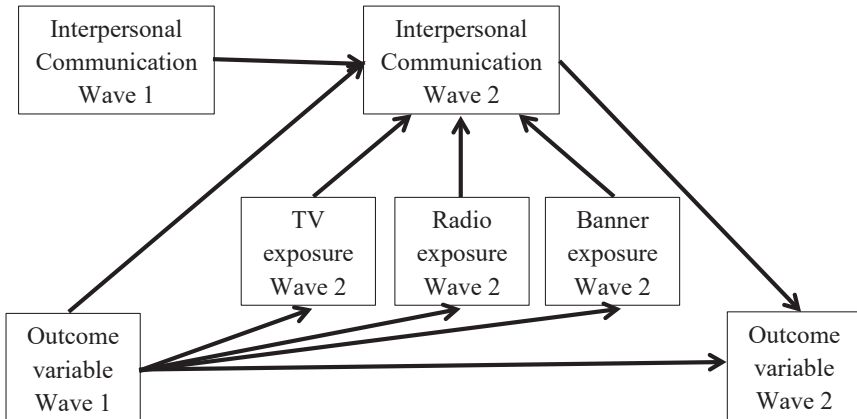

Figure 1: Tested model (simplified, without covariances and error correlations).

4 Results

Depending on the level of measurement of each variable, the means and standard deviations (attitude, intention) or percentages of respondents that answered *yes* on the dichotomous variables (awareness, knowledge, behavior, interpersonal communication, and media exposure) are presented in Table 1. Across the campaigns, awareness of the campaigns ranged between 64 % and 95 %, whereas correct knowledge about the specific campaign topic was held by 53 % to 97 %. Furthermore, attitude towards the message tended to be in the upper half of the 5-point Likert scale (means between 3.58 and 4.15). Intention was above midscale for campaigns A and E, and slightly below midscale for campaign B. Actual behavior ranged between 9 % and 82 %. Across campaigns, recall of TV exposure was higher (between 49 % and 73 % of respondents) than radio exposure (between 35 % and 61 % of respondents) or banner exposure (between 13 % and 36 % of respondents). Between 25 % and 66 % of respondents were involved in

interpersonal communication about the campaigns. Table 2 shows that interpersonal communication was stimulated by campaign exposure, although the media that was most influential differed over the course of the campaigns.

Table 1: Descriptives (Wave 2 measurement).

Campaign	Awareness % (SD)	Correct knowledge % (SD)	Attitude Mean[a] (SD)	Intention Mean[b] (SD)	Behavior % (SD)	Interpersonal communication % (SD)	TV exposure % (SD)	Radio exposure % (SD)	Banner exposure % (SD)
A	95.2 (21.4)	71.7 (23.9)	3.89 (0.67)	4.55 (1.50)	42.9 (49.5)	40.6 (49.2)	69.1 (46.2)	60.6 (48.9)	34.7 (47.7)
B	64.0 (48.0)	53.5 (26.8)	3.61 (0.58)	2.82 (1.03)	24.5 (43.1)	24.9 (43.3)	48.9 (50.0)	35.0 (47.7)	24.3 (42.9)
C	87.6 (28.2)	97.2 (14.8)	4.15 (0.78)	-----	82.2 (38.3)[c] 9.1 (28.8)[d]	57.5 (49.5)	72.7 (44.6)	48.6 (50.0)	35.6 (47.9)
D	-----	68.1 (32.6)	4.04 (0.60)	-----	44.1 (49.7)[c] 58.2 (49.4)[d]	48.9 (50.1)	65.4 (47.7)	38.9 (48.8)	13.2 (34.0)
E	-----	79.9 (19.9)	3.58 (0.94)	3.21 (1.04)	72.0 (44.9)	66.5 (47.2)	61.9 (48.6)	40.8 (49.2)	26.8 (44.3)

[a] Attitude was measured on a scale from 1–5. [b] Intention was measured on a scale from 1–5, except for campaign E where it was measured from 1–4. [c] These statistics refer to the first behavior promoted by this campaign. [d] These statistics refer to the second behavior promoted by this campaign.

Table 2: Standardized effects of regression of Wave 2 interpersonal communication on TV, radio, and banner exposure, and Wave 1 interpersonal communication.

Campaign	TV	Radio	Banner	IC (Wave 1)
A	0.17***	0.05	0.13**	0.19***
B	0.10*	0.14**	0.08	0.42***
C	0.05	0.10*	0.10*	0.32***
D	0.14*	0.08	0.02	0.37***
E	0.01	0.11**	0.01	0.34***

Note. IC = interpersonal communication.
* *p* < .05, ** *p* < .01, *** *p* < .001.

Awareness. As depicted in Table 3, interpersonal communication had positive direct effects on awareness of the topic in all three campaigns where awareness was assessed. Turning to the effects of media exposure on awareness, there were three positive direct effects and six positive indirect effects via interpersonal exposure. Specifically, TV exposure had one direct effect (campaign B) and two indirect effects (campaigns A and B). Radio exposure had two direct effects (campaigns A and B) and two indirect effects (campaigns B and C). Banner exposure had no direct effects, and two indirect effects (campaigns A and C).

Table 3: Standardized direct and indirect effects of media and interpersonal communication on awareness.

	IC	TV		Radio		Banner	
Campaign	Direct	Direct	Indirect	Direct	Indirect	Direct	Indirect
A	0.12***	0.06	0.02***	0.14***	0.01	0.04	0.02**
B	0.18***	0.15***	0.02*	0.09*	0.02**	-0.01	0.01
C	0.13**	0.06	0.01	0.05	0.01*	0.00	0.01**

Note. IC = interpersonal communication; indirect effects refer to the paths mediated through interpersonal communication.
* *p* < .05, ** *p* < .01, *** *p* < .001.

Knowledge. As Table 4 shows, interpersonal communication had positive direct effects on knowledge of the campaign topic in four of the five campaigns. Regarding the effects of media exposure on knowledge, there were three posi-

tive direct effects and six positive indirect effects via interpersonal exposure. TV exposure had one direct effect (campaign A) and two indirect effects (campaigns A and B). Radio exposure had two direct effects (campaigns A and B) and two indirect effects (campaigns B and E). Banner exposure had no direct effects and two indirect effects (campaigns A and B).

Table 4: Standardized direct and indirect effects of media and interpersonal communication on knowledge.

| Campaign | IC | TV | | Radio | | Banner | |
	Direct	Direct	Indirect	Direct	Indirect	Direct	Indirect
A	0.19***	0.09*	0.03***	0.10*	0.01	0.01	0.02**
B	0.10*	0.08	0.01*	0.10*	0.01*	-0.01	0.01*
C	0.06	0.02	0.00	0.03	0.01	-0.03	0.01
D	0.12**	0.06	0.01	0.07	0.01	0.03	0.00
E	0.11**	0.06	0.00	0.03	0.01**	0.03	0.00

Note. IC = interpersonal communication; indirect effects refer to the paths mediated through interpersonal communication.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Attitude. As shown in Table 5, interpersonal communication had positive direct effects on attitude towards the topic in four of the five campaigns. Two positive direct effects of media exposure were found, for TV exposure (campaign A) and radio exposure (campaign C). There were four positive indirect effects of exposure via interpersonal exposure. TV had one indirect effect (campaign B), radio had two indirect effects (campaigns B and E), and banner had one indirect effect (campaign C).

Table 5: Standardized direct and indirect effects of media and interpersonal communication on attitude.

	IC	TV		Radio		Banner	
Campaign	Direct	Direct	Indirect	Direct	Indirect	Direct	Indirect
A	0.13**	0.12*	0.00	0.00	0.00	0.04	0.00
B	0.14***	0.06	0.01*	-0.02	0.02**	0.01	0.01
C	0.08**	0.03	0.00	0.06*	0.01	-0.01	0.01*
D	0.05	0.06	0.00	0.00	0.00	0.00	0.00
E	0.12***	0.01	0.00	-0.02	0.01**	0.03	0.00

Note. IC = interpersonal communication; indirect effects refer to the paths mediated through interpersonal communication.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Intention. As depicted in Table 6, interpersonal communication had positive direct effects on the behavioral intention in all three campaigns where intention was assessed as an outcome variable. Regarding effects of media exposure, no direct effects and five positive indirect effects were found. Specifically, TV had two indirect effects (campaigns A and B), radio had two indirect effects (campaigns B and E), and banner had one indirect effect (campaign A).

Table 6: Standardized direct and indirect effects of media and interpersonal communication on intention.

	IC	TV		Radio		Banner	
Campaign	Direct	Direct	Indirect	Direct	Indirect	Direct	Indirect
A	0.23***	0.08	0.04**	0.08	0.01	-0.03	0.03*
B	0.08*	0.04	0.01*	0.00	0.01*	0.01	0.01
E	0.14***	0.02	0.00	-0.04	0.01*	0.02	0.00

Note. IC = interpersonal communication; indirect effects refer to the paths mediated through interpersonal communication.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Behavior. Table 7 shows that interpersonal communication had positive direct effects on behavior in three of the seven tested models. Four positive direct effects of media exposure were found: one for TV exposure (campaign D), two for radio exposure (campaigns C and E), and one for banner exposure (campaign C).

Moreover, there were six positive indirect effects. Two indirect effects were found for TV (campaigns A and B), radio (campaigns B and C), as well as banner exposure (campaigns A and C).

Table 7: Standardized direct and indirect effects of media and interpersonal communication on behavior.

	IC	TV		Radio		Banner	
Campaign	Direct	Direct	Indirect	Direct	Indirect	Direct	Indirect
A	0.31***	0.03	0.05**	0.08	0.01	0.00	0.04**
B	0.18***	0.00	0.02*	0.00	0.03***	-0.02	0.01
C1[a]	0.08*	-0.03	0.00	0.12***	0.01*	0.04	0.01*
C2[b]	0.05	-0.07	0.00	0.00	0.00	0.09*	0.00
D1[a]	-0.08	0.20**	-0.01	-0.04	-0.01	-0.04	0.00
D2[b]	0.03	-0.06	0.00	-0.01	0.00	-0.02	0.00
E	0.04	-0.02	0.00	0.06*	0.00	-0.01	0.00

Note. IC = interpersonal communication; indirect effects refer to the paths mediated through interpersonal communication.
[a] These statistics refer to the first behavior promoted by this campaign. [b] These statistics refer to the second behavior promoted by this campaign.
* $p < .05$, ** $p < .01$, *** $p < .001$.

5 Discussion

This paper aims to explore whether interpersonal communication mediates the effects of media exposure to public information campaigns on five persuasive outcomes: awareness, knowledge, attitude, intention, and behavior. Data from five Dutch public campaigns are used. The results show that interpersonal communication has direct positive effects on the five outcome variables in 17 of the 23 tested models and mediates the effects of media exposure on these variables in 15 models. In the 23 models, 12 direct effects on the outcome variables are found for the media exposure variables (one for online banners, four for TV, and seven for radio) as well as 27 indirect effects via interpersonal communication (eight for online banner exposure, nine for TV exposure, and ten for radio exposure). For all outcome variables, more indirect than direct effects are found of media exposure on the outcome variables. In other words, when people are exposed to a media message of a public campaign, they will be more likely to talk with someone else about the campaign topic, and as a result of this interpersonal communication

(rather than of direct exposure to media) increase their awareness, knowledge, attitude, intention, and behavior promoted in the campaign. This supports previous empirical findings from health campaigns (Schuster et al., 2006; van den Putte et al., 2011).

These results are in line with the reasoning presented in Jeong and Bae (2018), namely that for someone to be persuaded regarding a campaign topic, that topic needs to first become salient in the person's mind. Campaign exposure can bring a campaign topic to the attention of people, after which interpersonal communication is a way to further increase salience about a topic (Hwang and Southwell, 2009). However, it must be noted that the indirect effects are small. Also, interpersonal communication after the campaign is more predicted by interpersonal communication before the campaign than by campaign exposure, indicating that people discuss the topic already before they are exposed to a PIC, and thus that there are other relevant determinants that stimulate interpersonal communication, for instance, personal interest in the topic. Future studies should examine these determinants of interpersonal communication (for an example, see Kalogeropoulos and Hopmann, 2019).

To our knowledge, this paper is the first to analyze the mediating effects of interpersonal communication in public information campaigns on topics other than health. Our paper shows that interpersonal communication plays an important role in the media exposure effects of public campaigns. A strength of our study is that longitudinal datasets are used that test existing public campaigns. This allows us to study changes in the dependent variables and increases the ecological validity of our study. A limitation of our study, however, is that campaign exposure and interpersonal communication are assessed in the same wave, with respect to the previous month. Therefore, one could argue that the relationship between interpersonal communication and media exposure could be the other way around as well, namely that interpersonal communication leads to better recall of campaign exposure. That is, if an individual has more pre-existing interest in a topic, indicated by pre-campaign interpersonal communication about it, it is more likely that this individual notices and pays attention to media messages about this topic, and thus is more likely to report exposure to a campaign about this topic. Because this cannot be solved by a three-wave design – as real-life exposure and interpersonal communication most likely always occur in the same period, both influencing the dependent variables – future research may employ experimental designs in order to test a causal relationship between exposure and interpersonal communication. Additionally, future studies may also take into account exposure to other types of media, such as outdoor advertising, messages in print media, and social media posts, in order to investigate whether similar mediating effects of interpersonal

communication are found (for an example on brand communication and social media, see Araujo, 2019).

Our results add empirical proof that interpersonal communication plays an important role in understanding the effects of media exposure on persuasive outcomes of public information campaigns. We recommend that in order to fully understand the way in which media lead to persuasive outcomes of public campaigns, researchers should take into account interpersonal communication as a mediator. In addition, practitioners should pay increased attention to the concept of interpersonal communication, which has been shown to be a relevant determinant of outcome variables. As currently most interpersonal communication is not caused by campaign exposure, campaign developers should design messages in public campaigns that stimulate interpersonal communication, as this may increase the persuasiveness of their campaigns. In this, governmental campaign developers can learn from various fields of communication. For example, in marketing communication interpersonal communication is acknowledged as an increasingly important component, commonly called word-of-mouth marketing (WOM; Kozinets, de Valck, Wojnicki, and Wilner, 2010), with brands encouraging consumer-to-consumer communication about their brand and products. Also, in political communication, it has been found that an online environment can catalyze interpersonal communication (called e-WOM) and overall engagement of individuals as a result of being exposed to certain messages (Norris and Curtice, 2008; Oates and Gibson, 2006). This is explained, for example, by the fact that an online platform offers the possibility for public conversations and allows individuals to share certain messages on their personal profiles (Jackson and Lilleker, 2009). The latter can also lead to a message becoming viral, which is generally a desired persuasive outcome (Ho and Dempsey, 2010). Studies in political communication further showed that to support the virality of a message, it is important to consider factors such as the fit between the platform where the message is posted and its recipients (Larsson, 2017) or by engaging more sources in dissemination of the message, for example, bloggers (Wallsten, 2010). Another message feature that can elicit interpersonal communication is the emotional component, namely, provocative emotional messages which elicit more arousal are more likely to stimulate interpersonal communication (Berger and Milkman, 2011; Dunlop, Kashima and Wakefield, 2010). However, it should be noted that generally the government avoids creating campaigns that are controversial or elicit strong arousal or emotions. In addition, campaign evaluators should assess interpersonal communication in evaluations of public campaigns. This may add increased understanding of how media channels are persuasive in promoting the message of public campaigns.

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