Emotions, Risk Perception and Preventive Behavior during the COVID-19 Pandemic: The Mediating Role of Media Use

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Abstract: As a result of the COVID-19 pandemic, media consumption has begun playing a more significant role in shaping public perceptions and well-being. The current study examines the effects of risk perception, economic situation, and negative emotions during the COVID-19 pandemic on preventive behaviors, while focusing on the mediating role of media exposure levels. An online survey was conducted during the 2020 outbreak of COVID-19 in Israel. SEM analysis results show that during the pandemic, media exposure increased with negative emotions levels, increased with higher exposure to the pandemic and increased as the economic impact of the pandemic increased. In addition, preventive behavior increased with media exposure. Moreover, the media exposure variable was found to mediate the effect of negative emotions and of the perceived risk of being infected with coronavirus on preventive behavior. Implications for government policy are discussed.

Keywords: COVID-19; emotions; media; preventive behavior; risk perception

1. Introduction

News media play an essential role in delivering risk communication. Previous studies have placed growing emphasis on the role of media, especially social media, during infectious disease outbreaks (e.g., [1–4]). The media inform the public in real time about risk cases and motivate people to carry out certain behaviors [5,6]. Social media and news consumption became even more central during the COVID-19 pandemic, with evidence pointing to the considerable impact of news consumption on mental health and well-being [7]. Moreover, public health messages disseminated through mass media can significantly influence individuals’ emotional, cognitive, and behavioral reactions to conveyed risk messages [8]. Nevertheless, the effects of media use, risk perceptions, and negative emotions on preventive behavior during the worldwide COVID-19 pandemic have not yet been fully explored. The current study aims to fill this void.

Using data collected during the 2020 outbreak of COVID-19 in Israel, the study examines the role of risk perceptions, negative emotions evoked during the pandemic, and media exposure in predicting preventive behavior. Besides the risk of COVID-19 infection, Israelis constantly face other major risks, among them terrorism and war. Hence, Israel serves as a unique case study. Previous studies have examined the relationship between emotions, risk perceptions, and precautionary actions in the context of terror attacks. For example, in the context of risks associated with terrorism and military operations, Lahav et al. found that better compliance with instructions issued by the Israel Defense Forces (IDF) correlated with higher negative emotions such as fear [9]. Examining the relationship between infection risk perceptions, emotions, media use, and preventive behavior in Israel in the context of the world COVID-19 pandemic can shed light on this important topic.

The current study draws upon the theoretical framework of the Risk Information Seeking and Processing (RISP) model [10] in examining the relationship between media use, emotions, perceived risks, and preventive behavior. The RISP model aims to understand...
how individuals seek, process, and utilize risk information in the context of health communication. A scoping review of the literature described this model as the most commonly referenced framework for risk information seeking and processing models [11].

The RISP model has been used effectively to explore the factors driving information-seeking behavior in diverse health and risk contexts, including COVID-19 [12], H1N1 influenza [13], and bovine tuberculosis [14]. Nevertheless, previous studies that implemented the RISP model did not focus on the relationship between individual information-seeking through media use and preventive behavior in the context of the COVID-19 pandemic. Our study fills this void. In addition, our study adds to the existing literature by examining the relationship between the levels of economic hardships individuals faced during the pandemic and their risk perceptions.

Specifically, the study examines the following issues: (1) How is the impact of the COVID-19 pandemic on the economic situation of individuals related to their risk perceptions and negative emotions during the pandemic? (2) How is self-perceived risk of being infected by the coronavirus related to negative emotions? (3) How is media use related to preventive behavior? (4) How do risk perceptions and emotional responses affect preventive behaviors through consumption of media content?

2. Literature Review

The RISP model proposes various elements that may influence how individuals search for and comprehend risk information, as well as how these processes ultimately shape the behaviors individuals may choose when confronted with a particular health risk. The model predicts that people who engage in more effortful information-seeking and processing are more likely to develop risk-related cognitions, attitudes, and behaviors that are more stable over time [10].

In the current study, we aim to apply the RISP framework in the COVID-19 pandemic context by referring to three aspects of media exposure: negative emotions, perceived risk, and preventive behavior.

During the COVID-19 pandemic, people perceived a threat to their health and the health of people close to them. In addition, people perceived that their economic situation and job security were being threatened. Consequently, people began experiencing negative emotions such as fear and anxiety. The findings of previous studies indicate that exposure to media content regarding infectious outbreaks tends to evoke negative emotions such as anxiety and fear [15,16].

In turn, the RISP model predicts that negative emotions such as worry motivate information-seeking and processing with respect to a particular risk. Indeed, empirical findings show that negative emotions and perceived threat may motivate people to take action [17]. One such possible action is media consumption, including social media [18]. Ref. [19] analyzed all coronavirus-related Twitter activity during the COVID-19 pandemic and found that about half of the tweets expressed fear. A study conducted in Germany during the early stages of the COVID-19 pandemic Ref. [20] found that worries related to the coronavirus were higher on days with more exposure to media related to COVID-19. That study also indicated that higher media exposure on a particular day predicted more worries the following day, and higher worries on a particular day also predicted higher media exposure the next day. In addition, Ref. [21] found that consumption of mainstream media in the USA was associated with fear, anxiety, and anger, while social media consumption was not. Older adults in the USA who closely followed the news about the pandemic scored higher on an index of psychological distress than those who followed the news less closely [22]. We therefore hypothesize:

**Hypothesis 1:** During the COVID-19 pandemic, higher levels of negative emotions will be associated with higher media exposure.
In addition, previous studies demonstrated a significant relationship between economic hardships during the COVID-19 lockdown and the expression of feelings of depression and health anxiety [23]. We therefore hypothesize:

**Hypothesis 2:** During the COVID-19 pandemic, higher levels of negative economic impact will be associated with higher levels of negative emotions.

According to the RISP model, motivations for information-seeking interact with perceptions of different risk communication channels to shape how individuals interpret risk information [10]. Risk information delivered via the media during major incidents may affect emotional responses and risk perceptions [24]. During the outbreak of Middle East respiratory syndrome (MERS) in Republic of Korea, Ref. [25] examined the effect of individuals’ media exposure on their risk perceptions and behavioral intentions to engage in economic and social activities. The authors found that the more respondents were exposed to news and information about MERS in the mass media, the higher they perceived their risk of being infected with the disease. In addition, they found that respondents who perceived less risk about the disease were more likely to engage in social and economic activities. Recent research related to the COVID-19 outbreak shows that news-seeking in Italy during the pandemic increased risk perceptions [26]. We therefore hypothesize:

**Hypothesis 3:** During the COVID-19 pandemic, higher levels of perceived risks will be positively associated with higher media exposure.

The RISP model posits that the primary information that individuals gather and process (e.g., through the media channels) pertains to preventive behaviors and their effectiveness in mitigating the risks of a particular hazard (e.g., the effectiveness of the behavior in reducing personal risk and the level of risk that remains). According to the model, individuals seek and process this information until they reach a point where they feel confident in their knowledge and ability to take effective preventive action.

Various empirical studies refer to the relationship between media exposure and preventive health behavior. For example, Ref. [4] examined the effects of media exposure on risk perceptions and behaviors in the United States in the context of the Zika virus. Their findings indicate that changes in the volume of information on legacy media such as television and newspapers and on online social media (i.e., Twitter) were followed by differential changes in community risk perceptions and preventive behaviors. For example, social media coverage correlated with level of risk perceptions, while legacy media coverage correlated with level of preventive behaviors. The findings of [27] for Republic of Korea during the COVID-19 pandemic point to a significant association between media exposure and negative emotions, in turn exerting both a direct and an indirect impact on adoption of preventive measures. We therefore hypothesize:

**Hypothesis 4:** During the COVID-19 pandemic, higher levels of preventive behavior will be positively associated with higher media exposure.

### 3. Methods

#### 3.1. Sample

After the study was approved by the college ethics committee, an online survey was conducted by a professional polling company in May 2020. Invitations to participate were sent to 837 adults in Israel and 780 participants completed the survey. Participants had the option of deciding not to continue with the survey at any stage. Table 1 summarizes the socio-demographic data of the sample. The sample comprised 49.1% women and 50.9% men, 66.8% Jews and 33.2% non-Jews. The age of the respondents ranged from 18 to 70 years (M = 38.14), and they had an average of 14.47 years of education. Data are available upon request.
Table 1. Socio-Demographic Data.

<table>
<thead>
<tr>
<th></th>
<th>(N = 780)</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td>49.10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arabs</td>
<td></td>
<td>33.20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Married</td>
<td></td>
<td>35.40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>38.14</td>
<td>13.75</td>
<td>18</td>
<td>70</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td>3.62</td>
<td>1.13</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Education level (years)</td>
<td></td>
<td>14.47</td>
<td>2.47</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Religiosity level</td>
<td></td>
<td>3.20</td>
<td>0.80</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Risk Attitude</td>
<td></td>
<td>3.93</td>
<td>2.19</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Income level was estimated using an ordinal 5-point scale in relation to the average income level of salaried employees in Israel (NIS 21,000 gross). The results (M = 3.62) reflect a relatively high income level on the measurement scale.

The respondents’ level of religiosity was measured using a single statement that participants answered on a 5-item ordinal scale, where 1 represents a low level of religiosity (secular) and 5 represents a high level of religiosity. The results reflect an intermediate level of religiosity (M = 3.2).

Respondents’ risk attitude was measured using a single statement that participants answered on a 10-item ordinal scale, where 1 represents risk avoidance and 10 represents a preference for engaging in risk behaviors. The average risk attitude level of the respondents (M = 3.93) reflects a conservative tendency to engage in risky behaviors.

3.2. Questionnaire

The research tool was a self-completion questionnaire (see Appendix A). This study and questionnaire were approved by the Research Ethics Committee on 20 April 2020. The authors translated the questionnaire into Hebrew and then an English editor back-translated it into English. The questionnaire was retested using a pilot study. The consistency of the survey was further assessed by Cronbach’s alpha. The questionnaire included eight sections:

1. Media Exposure: Extent of exposure to news in the media during the pandemic, measured on a five-point scale ranging from 1 (not at all) to 5 (all the time). This variable included four items: (1) How often do you follow developments and news regarding the coronavirus? (2) During the pandemic I follow the news on social media very often. (3) During the COVID-19 crisis I get my news from different sources. (4) During the pandemic, I am exposed to the media more than in ordinary times. The average of the four items was calculated to form the Media Exposure variable. Alpha Cronbach is 0.67.

2. Emotions: This part of the questionnaire was based on the questionnaire devised by [24], which was translated into Hebrew, retested, adapted to the Israeli situation, and validated in [28] and in [29] in the context of terrorism and war. The version used in the current study was adapted for the COVID-19 pandemic crisis. Participants were asked to rank statements regarding their emotions during the COVID-19 pandemic on a 5-point scale ranging from 1 (not at all) to 5 (a very large degree). This variable included four items: (1) During the pandemic I felt very stressed. (2) During the pandemic I felt very depressed. (3) During the pandemic worries prevented me from sleeping. (4) During the pandemic I felt I was losing my self-confidence. The average of the four items was calculated to form the COVID-19 Negative Emotions variable. Alpha Cronbach is 0.83. In addition, we asked participants to rank four statements regarding the degree of emotions they felt during the pandemic with respect to their media consumption: Media reports about the pandemic made me feel (1) worried; (2) sad; (3) angry; (4) bad. The average of the four items was calculated to form the COVID-19 Media Emotions variable. Alpha Cronbach is 0.83.
(3) Preventive behavior: Participants were asked to rank the frequency of their compliance with Ministry of Health guidelines (MOH) on a five-point scale ranging from 1 (not at all) to 5 (to a very large degree). The two items were: (1) During the pandemic I always comply with the most recent MOH guidelines. (2) I am more careful than usual about hygiene rules during the pandemic. The average of the two items was calculated to form the Preventive Behavior variable. Alpha Cronbach is 0.74.

(4) Risk Attitude: This variable was measured using the validated general risk question from [30]: ‘How willing are you to take risks in general?’ Participants answered on a 10-point scale ranging from 1 (avoid risk at all costs) to 10 (engage in risky activities to a large degree).

(5) COVID-19 Economic Impact: Participants were asked to respond to the following question: ‘To what extent were you or your family financially harmed during the COVID-19 pandemic?’ Participants ranked these items on a 5-point scale ranging from 1 (very little or no economic harm) to 5 (significant economic harm).

(6) Exposure to coronavirus disease: The respondents were asked to rank the degree of their exposure to the COVID-19 virus (exposure to an infected person). Values range from 1 (the respondent himself was infected in Corona) to 3 (not exposed and/or infected by Corona at all).

(7) Perceived risk of being infected by coronavirus disease: Participants were asked to rank their chances of being infected in the next 12 months on a 5-point scale ranging from 1 (no chance at all) to 5 (to a very large extent).

(8) Socio-demographic data, including gender, age, education, religiosity, and marital status.

4. Results

Table 2 shows the means and standard deviations for the main variables, including the economic impact of the pandemic, exposure to coronavirus, perceived risk of being infected, emotions, media exposure, and preventive behavior.

Table 2. Media exposure, emotions, perceived infection risk and preventive behavior: means and SDs (N = 780).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 economic impact</td>
<td>3.08</td>
<td>1.31</td>
</tr>
<tr>
<td>Exposure to coronavirus disease</td>
<td>1.99</td>
<td>0.16</td>
</tr>
<tr>
<td>Perceived risk of infection</td>
<td>2.36</td>
<td>0.9</td>
</tr>
<tr>
<td>Media exposure</td>
<td>3.43</td>
<td>0.76</td>
</tr>
<tr>
<td>COVID-19 negative emotions</td>
<td>2.52</td>
<td>0.94</td>
</tr>
<tr>
<td>COVID-19 media emotions</td>
<td>3.12</td>
<td>0.85</td>
</tr>
<tr>
<td>Preventive behavior</td>
<td>4.35</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Two variables were used to estimate respondents’ exposure to COVID-19 and extent to which they were affected by the coronavirus. The first dimension examined the extent of COVID-19’s economic impact. On average, respondents reported a moderate amount of economic harm (M = 3.08), indicating an intermediate degree of economic influence.

The second dimension examined exposure to coronavirus disease. On average, the respondents’ scores in this context were M = 1.99, indicating a medium-low degree of exposure to the epidemic. The third dimension represents respondents’ perceived risk of being infected by coronavirus. The average of the respondents’ scores was M = 2.36, reflecting a relatively low perceived risk of being infected by the coronavirus.

Table 2 also shows that the degree of respondents’ media exposure degree was moderate (M = 3.43), their level of negative emotions was moderate/high (M = 2.52), and the level of emotions they experienced while consuming media messages during the pandemic (COVID-19 Media Emotions) was high (M = 3.12). Table 2 also points to a high level of compliance with COVID-19 guidelines (M = 4.35).
Table 3 shows the main variables of the study according to gender, social group, and marital status. No gender differences were found with respect to the study variables, with the exception of higher levels of COVID-19 negative emotions among women than among men (3.24 versus 3.00, p < 0.01). In addition, the perceived risk of infection was higher among married respondents than among unmarried respondents (2.43, versus 2.24, p < 0.01).

Table 3. Emotions, perceived infection risk, economic impact, media exposure, and preventive behavior—by gender, social group, and marital status (t-test analysis for mean differences of independent groups).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Social Group</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
<td>t</td>
</tr>
<tr>
<td>N</td>
<td>383</td>
<td>397</td>
</tr>
<tr>
<td>M+</td>
<td>3.04</td>
<td>3.11</td>
</tr>
<tr>
<td>SD++</td>
<td>1.33</td>
<td>1.28</td>
</tr>
<tr>
<td>M</td>
<td>2.31</td>
<td>2.41</td>
</tr>
<tr>
<td>SD</td>
<td>0.89</td>
<td>0.91</td>
</tr>
<tr>
<td>M</td>
<td>3.38</td>
<td>3.47</td>
</tr>
<tr>
<td>SD</td>
<td>0.74</td>
<td>0.78</td>
</tr>
<tr>
<td>M</td>
<td>2.49</td>
<td>2.56</td>
</tr>
<tr>
<td>SD</td>
<td>0.97</td>
<td>0.91</td>
</tr>
<tr>
<td>M</td>
<td>3</td>
<td>3.24</td>
</tr>
<tr>
<td>SD</td>
<td>0.89</td>
<td>0.79</td>
</tr>
<tr>
<td>M</td>
<td>4.33</td>
<td>4.37</td>
</tr>
<tr>
<td>SD</td>
<td>0.74</td>
<td>0.72</td>
</tr>
</tbody>
</table>

+ M = Mean, ** S.D. = Standard Deviation, ** p < 0.01.

In contrast, as illustrated in Table 3, a sectoral difference emerged for most of the study variables. Arab respondents reported more economic harm than Jews (3.59 vs. 2.82), their expectations regarding being infected with coronavirus were higher (2.51 vs. 2.29), their level of media exposure was higher (3.62 vs. 3.33), their COVID-19 negative emotions were higher (2.82 vs. 2.38), their COVID-19 media emotions were higher (3.26 vs. 3.06), and they were more inclined to comply with COVID-19 guidelines (4.49 vs. 4.28).

As detailed in Table 4, respondents' age exhibited a significant negative correlation with COVID-19 economic impact (r = −0.151, p < 0.01), as well as with emotions experienced while consuming media messages during the pandemic (r = −219, p < 0.01). Education level exhibited a significant and negative correlation with COVID-19 economic impact (r = −0.126, p < 0.01), and a positive and significant correlation with perceived risk of infection (r = 0.126, p < 0.01). Religiosity level was significantly and negatively correlated with COVID-19 economic impact (r = −0.115, p < 0.01).

Table 4. Pearson correlations for the following variables: emotions negative corona, Emotions media corona, perceived risk of infection, and preventive behavior—age, education level, and religiosity level.

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Education (Years)</th>
<th>Religiosity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 economic impact</td>
<td>−0.151 **</td>
<td>−0.126 **</td>
<td>−0.115 **</td>
</tr>
<tr>
<td>Perceived risk of infection</td>
<td>−0.030</td>
<td>0.126 **</td>
<td>0.010</td>
</tr>
<tr>
<td>Media exposure</td>
<td>−0.030</td>
<td>0.033</td>
<td>−0.043</td>
</tr>
<tr>
<td>COVID-19 negative emotions</td>
<td>−0.219 **</td>
<td>−0.057</td>
<td>−0.024</td>
</tr>
<tr>
<td>COVID-19 media emotions</td>
<td>−0.023</td>
<td>0.016</td>
<td>0.000</td>
</tr>
<tr>
<td>Preventive behavior</td>
<td>0.000</td>
<td>−0.069</td>
<td>−0.047</td>
</tr>
</tbody>
</table>

** p < 0.01.

Finally, as detailed in Table 5, positive and significant correlations emerged between all the study variables, except between perceived infection risk and preventive behavior.
Table 5. Pearson correlations for emotions, perceived risk of infection, and preventive behavior.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 economic impact</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived infection risk</td>
<td>0.114 **</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media exposure</td>
<td>0.171 **</td>
<td>0.097 **</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID-19 negative emotions</td>
<td>0.338 **</td>
<td>0.169 **</td>
<td>0.276 **</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID-19 media emotions</td>
<td>0.198 **</td>
<td>0.134 **</td>
<td>0.290 **</td>
<td>0.376 **</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Preventive behavior</td>
<td>0.146 **</td>
<td>-0.013</td>
<td>0.275 **</td>
<td>0.114 **</td>
<td>0.116 **</td>
<td>1</td>
</tr>
</tbody>
</table>

** p < 0.01.

SEM Analysis

The structural equations model for estimating the relationships among the seven variables was tested using the Lavaan installation package in R version 4.0.3. First, we estimated the model’s fit to the data using a diagonally weighted least squares model (DWLS) based on polychoric correlation matrices and robust error corrections [31,32].

The results of the path analysis with the standardized regression coefficients are illustrated in Figure 1. The final model exhibited a good fit, with χ² = 39.038 (df = 37, p = 0.378), RMSEA = 0.008, NNFI = 0.993, TLI = 0.998 and CFI = 0.993.

![Figure 1. Final Path analysis (Standardized coefficients) * p < 0.05, ** p < 0.01, *** p < 0.001.](image)

The results of the analysis indicate that perceived risk of being infected by the coronavirus is higher among Arabs (β = 0.10) and among married individuals (β = −0.13) and increases with education (β = 0.14). In addition, the results indicate that perceived infection risk increases as the economic impact of the pandemic becomes more acute (β = 0.12).

Negative emotions elicited by the pandemic (COVID-19 negative emotions) are more common among Arab respondents (β = 0.08) and increase with level of income (β = 0.08) and level of religiosity (β = 0.10). Additionally, levels of negative emotions due to the pandemic decrease with age (β = −0.18) and increase as the perceived risk of being infected by coronavirus increases (β = 0.130). Moreover, higher levels of COVID-19 economic impact are positively and directly correlated with negative emotions, as well as indirectly through the effect of the perceived risk of infection.

Women were more likely to experience negative emotions while consuming media messages during the pandemic (COVID-19 media emotions) than men (β = 0.34). In addition, the economic impact of the pandemic affected the COVID-19 media emotions variable both directly (β = 0.17) and indirectly through the effect of perceived risk of infection. Hence, the overall impact of the economic variable on the COVID-19 media emotions variable is β = 0.18.

Media exposure is more common among Arabs (β = 0.16) and decreases as attitudes towards risk (β = −0.08) and COVID-19 exposure (β = −0.11) decrease. In addition, media
exposure levels were found to increase with negative emotions felt during the pandemic ($\beta = 0.15$) and with negative media emotions during media exposure ($\beta = 0.11$). In fact, negative emotions felt during the pandemic and while consuming media content mediated the effect of perceived risk of infection on media use.

In addition, economic impact affected media exposure both directly ($\beta = 0.08$) and indirectly through the effect of the two emotion variables, so that the overall impact of the economic variable on media exposure is $\beta = 0.16$ ($p < 0.01$).

The results also indicate that preventive behavior increases with media exposure ($\beta = 0.26$), such that the media exposure variable mediates the effect of emotions and of perceived risk of infection on preventive behavior. In addition, the results show that preventive behavior decreases with education ($\beta = -0.09$). Nevertheless, level of education also has an indirect effect on preventive behavior through its effect on perceived risk of infection, emotion variables, and media exposure. Therefore, the overall effect of education level on preventive behavior is $\beta = -0.09$ ($p < 0.05$). Similarly, preventive behavior decreases with risk attitude ($\beta = -0.12$), yet the risk variable still has an indirect effect on preventive behavior through the media exposure variable, so that the overall effect of risk on preventive behavior is $\beta = -0.14$ ($p < 0.01$).

5. Discussion

Based on the RISP model, the current study focused on the relationship between individual information-seeking through media use and preventive behavior in the context of the COVID-19 pandemic. As a result of the pandemic, media consumption has begun playing a more significant role in shaping public perceptions and well-being. The current study examines the effects of risk perception, economic situation, and negative emotions during the COVID-19 pandemic on preventive behaviors, focusing on the mediating role of media exposure levels.

Our findings indicate that higher levels of negative emotions during the pandemic are correlated with higher perceived risk of being infected with the coronavirus. This result is compatible with the valence approach [33,34], according to which negative emotions lead to pessimistic perceptions about risk. It is also in line with the empirical findings of [28,29,35] in the context of war and terror attacks. Our result is also consistent with the empirical findings of [36], who found that in the context of a forest fire disaster fearful people had higher levels of perceived self-risk, including risks unrelated to the fire (e.g., risk of being injured in a car accident).

Our findings also show that higher levels of negative emotions during the pandemic are associated with higher reported levels of negative economic impact, compatible with Hypothesis 2. In addition, higher levels of negative economic impact are associated with higher perceived risk of being infected by the coronavirus. A possible explanation for these results is that economic losses during the pandemic evoked negative emotions, which in turn affected perceived risk of being infected. That is, people felt more vulnerable in general, including health vulnerability to the coronavirus.

The current study also examines how media use is related to preventive behavior and how risk perceptions and emotional responses affect preventive behaviors through consumption of media content. We found that media exposure levels decrease as the level of exposure to COVID-19 decreases but increase as the individual economic impact of the pandemic increases. Our finding that during the COVID-19 pandemic, negative emotions were positively associated with higher extent of media exposure is compatible with Hypothesis 1 and validates the RISP model’s prediction that negative emotions motivate information-seeking. This hypothesis is also in line with the findings of [20] in Germany, [21,22] in the USA, and [27] in Republic of Korea.

In addition, we found that negative emotions during the pandemic in general and emotions evoked by media use in particular mediate the effect of background variables on media exposure as well as the effect of perceived risk of coronavirus infection. These results are consistent with Hypothesis 3 and with the findings of [25] that the more respondents
were exposed to news and information about MERS (Middle East respiratory syndrome) in the mass media, the higher they perceived their risk of being infected.

Consistent with Hypothesis 4, our result indicates that preventive behavior increases with media exposure. This result supports the RISP model’s prediction that the primary information individuals gather and process (e.g., through the media channels) pertains to preventive behaviors. In fact, we found that the media exposure variable mediates the effect of emotions and of perceived risk of infection on preventive behavior. Ref. [37] found that higher levels of negative emotions were associated with higher levels of compliance with preventive behavior during the pandemic in China. Ref. [38] showed that in Japan, people who assessed COVID-19 as a more severe disease, believe that the probability of being affected is high, and are more risk averse become more willing to take preventive measures (e.g., getting vaccinated). The findings of [27] in Republic of Korea indicate that media exposure is significantly related to negative emotions and has both a direct and an indirect impact on the adoption of preventive measures. Our results add to the existing literature by showing that media exposure level mediates the effect of perceived risk of infection and level of negative emotions on preventive behavior.

In addition, we found that preventive behavior decreases with education. Despite this, level of education also has an indirect effect on preventive behavior through its effect on perceived risk of infection, emotion variables, and media exposure. Similarly, preventive behavior decreases with risk attitude, compatible with the findings of [38] with respect to willingness to get vaccinated against COVID-19 during the pandemic in Japan. Nevertheless, our findings also indicate that risk aversion has an indirect effect on preventive behavior through level of media exposure.

6. Conclusions

Our study adds to the existing literature by examining the relationship between the levels of economic hardships individuals faced during the pandemic and their risk perceptions. Further, we showed that media exposure level mediates the effect of perceived risk of infection and level of negative emotions on preventive behavior.

The media play an important role in managing crises by informing the public, influencing people’s perceptions and emotions, and promoting changes in preventive behavior. Previous studies claimed that the consequences of ineffective pandemic communication can be severe [39–41]. Ref. [40] propose that to convey effective messages during the COVID-19 pandemic, “public health communication professionals should ensure that the content and delivery are driven by informativeness, personal relevance, and objectivity [40].

The findings of the current study also show that perceived risk of infection and negative emotions are correlated with media exposure and preventive behavior. Therefore, during a pandemic policymakers should use the media to deliver transparent messages to the public that explain the negative implications of infection on their health and that of others (e.g., older relatives and family members) and on their economic situation. These messages should include specific information, such as the severity of the consequences of not engaging in the behavior, the effectiveness of preventive behavior in mitigating personal risk, and potential side effects.

Messages that emphasize the advantages of taking precautionary actions and endorse actions that can reduce the risk of infection can cause people to feel hopeful and motivate them to take preventive actions. This recommendation is in line with the findings of previous studies [42].

Moreover, our study adds to the existing literature by emphasizing the relationship between the pandemic’s impact on individual economic status and the extent of media exposure, which in turn has an effect on preventive behavior. Therefore, framing messages with relevant information related to governmental support for individuals’ economic situation during the pandemic may have an impact. Such messages may enhance public trust in the government and encourage individuals to adopt more preventive behaviors.
Study Limitations

This study has several limitations. First, the study uses a self-reporting method, which can lead to response bias and selectivity bias. Another limitation is that it was conducted at the early stages of the COVID-19 pandemic in Israel.

Furthermore, the current study did not distinguish between different types of media. The effect of media exposure may differ for newspapers, online news, or television news. This point should be further examined in upcoming research.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Dataset available on request from the authors.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A. The Questionnaire

Please rank the following statements on a 5-point scale ranging from 1 (not at all) to 5 (to a very large degree):

1. During the pandemic, I follow developments and media news regarding the COVID-19.
2. During the pandemic I follow the news on social media very often.
3. During the COVID-19 crisis I get my news from different sources.
4. During the pandemic, I am exposed to the media more than in ordinary times.
5. During the pandemic I felt very stressed.
6. During the pandemic I felt very depressed.
7. During the pandemic worries prevented me from sleeping.
8. During the pandemic I felt I was losing my self-confidence.
9. Media reports about the pandemic made me feel:
   9.1 worried
   9.2 sad
   9.3 angry
   9.4 bad.
10. During the pandemic I always comply with the most recent MOH guidelines.
11. I am more careful than usual about hygiene rules during the pandemic.

Please rank the following statements on a 5-point scale ranging from 1 (avoid risk at all costs) to 10 (engage in risky activities to a large degree).

12. How willing are you to take risks in general?
13. To what extent were you or your family financially harmed during the COVID-19 pandemic?
14. Rank your chances of being infected with COVID-19 in the next 12 months
15. Socio-demographic data, including gender, age, education, religiosity, and marital status.
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