





Article

Changes in Tongue Kissing in Hook-Ups after COVID-19

Laura Ruiz-Eugenio ^{1,*} , Elisabeth Torras-Gómez ² , Garazi López de Aguilera-Jaussi ³ 
and Nerea Gutiérrez-Fernández ⁴ 

¹ Department of Theory and History of Education, University of Barcelona, 08035 Barcelona, Spain

² Department of Sociology, University of Barcelona, 08034 Barcelona, Spain; etorras@ub.edu

³ Department of Curriculum & Instruction, University of Wisconsin-Madison, Madison, WI 53715, USA; lopezdeaguil@wisc.edu

⁴ Department of Didactics and Curriculum Development, University of Deusto, 48007 Bilbao, Spain; gutierreznerea@deusto.es

* Correspondence: lauraruizeugenio@ub.edu

Received: 19 June 2020; Accepted: 3 August 2020; Published: 5 August 2020



Abstract: A growing body of social and behavioral sciences studies are providing evidence on how COVID-19 is influencing changes in society and among individuals. A few of those studies focus on how it is affecting behavioral and habit changes in stable couples. Yet its influence on changes in hook-ups remains understudied. To contribute to filling this gap, this exploratory study analyzes changes related to tongue kissing in hook-ups promoted by increased awareness of tongue kissing certain people as a potential source of transmission. Through pre- and post-test questionnaires given to 20 girls (18–30 years old), potential changes in the memories of past tongue-kissing hook-ups and in intentions and perceptions towards future ones can be observed among 12 participants. The implications of these findings suggest not only how the new normal might affect tongue kissing in hook-ups among these girls but also how these girls might freely decide with whom to engage in sexual-affective relationships in the future.

Keywords: COVID-19; tongue kissing; hook-ups; new normal; prevention

1. Introduction

The COVID-19 pandemic is a global health crisis that requires large-scale organizational and personal changes to limit the transmission of SARS-CoV-2 in the post-pandemic period, already known as the new normal [1]. While scientists around the world are making great efforts to find a COVID-19 vaccine, social and behavioral sciences studies are being published on the existing evidence of psychological, biological, social, and environmental factors that influence behavior to limit the transmission of the virus [2,3]. However, the implications for behavioral changes in sexual-affective relationships have hardly been published yet. The few that have been written make some reference to changes in the habits of stable couples [2,4]. Therefore, there is a gap in how the pandemic has influenced changes in habits and behavior towards hooking up, dating, or casual sexual relationships, when these may be one of the main sources of infection among youth. This article addresses the gap by providing evidence that suggests how the new normal might change memories, perceptions, and intentions of participating young women towards tongue-kissing hook-ups. The terms tongue-kissing and hook-up have been chosen as the closest translations of the terms used in Spanish when conducting the study. The study used the Spanish word *morreo*, a specific form of kiss, which has hook-up connotations attached to it. If one thinks of Romeo and Juliet's kiss, *morreo* is completely at odds with their kiss. Hence, the most similar translation we have found is tongue-kissing, although we acknowledge it

does not exactly convey the meaning of *morreo*. In addition, in this study hook-up is understood as a one-night stand, which might or might not involve sex.

1.1. Risk Perception, Behavioral Changes, and Choices in the New Normal

In recent weeks, research on risk and threat perception of the pandemic has been published, as it has become increasingly relevant for understanding and managing it. It is known that beliefs, knowledge, values, and attitudes influence not only individuals' decision making but also their behavior and exposure to infection risk [5]. Despite the fact that young people are not a COVID-19 risk group, one of the factors being studied as influencing their behavior most is the change in perception about the real risk to their lives and the lives of older people around them [6].

There is an urgent need for effective interventions to increase adherence to behaviors people can adopt to protect themselves and others [7,8] as well as a paucity of evidence on interventions that achieve these behavioral changes. The most consistent psychological predictors of concern about COVID-19 and adoption of healthy behaviors, as found in a US nationally representative sample, were increased sensitivity to pathogen disgust, germ aversion, and perception of infectivity [9]. Van Bavel and colleagues [2] have recently published a review of factors influencing decision making and behavior in the face of a pandemic, which is one of the few published studies that refers to factors that can influence changes in habits within intimate relationships in the new normal. Nevertheless, it only refers to long-term relationships, not to casual ones. They point out that a success factor in avoiding the stress of the infection threat is that couples calibrate their expectations to the circumstances and keep them high whenever the relationship can deliver in these conditions. Communication between partners about the consensus of what those conditions are can balance underestimating the probability of getting the disease with the anxiety and fear of contracting it [2].

Decades before the pandemic, the role of communication in decision making among people involved in a sexual-affective relationship had been widely studied [10]. Ulrich Beck had already referred to contract-style marriages in 1986 as a growing measure in which agreements could even be made to reveal to each other the form of their previous sexual experiences. Taking back Beck's analysis of what he called the risk society [11] could provide some clues about how the threat of contagion could be minimized in intimate relationships. For example, this may include a dialogue based on validity claims, honesty, and consensus without coercion [12] between the parties involved about the type of relationships they have had in previous weeks. Control and protection institutions will not be able to control the intimate relationships of people in order to limit the contagion. Therefore, the decisions and choices of individuals take on more significance than ever, in a society in which people act more on the basis of negotiations, dialogue, and the daily conquest of equality and freedom [13].

1.2. The Influence of Emotions on Choice

The review by Van Bavel and colleagues [2] has also reported how sound health decisions can be affected by emotions more than by factual information, and that prosocial behavior norms are more effective when they are accompanied by group social approval and when they are promoted through group members who have a central role. What others are doing or what they think others approve or disapprove of can have great influence on their own decisions. This is what Jon Elster [14] states as a choice guided by social norms. These are not guided by the best means but by the propensity to comply with the norms of the social group. Research also shows that the spread of fake information on social networks is influenced by emotion. However, when investigating the behavior of people on social networks, such as Twitter during the COVID-19 pandemic, it has been identified that fake information is tweeted more but is less retweeted than science-based information or fact-checking tweets, while science-based information and fact-checking tweets capture more engagement than simple facts [15,16].

The influence of emotions on decision-making processes and on choice was widely analyzed by Jon Elster. His analysis continues to be very useful for understanding decision-making processes and

choices of people in a pandemic and post-pandemic situation. Elster [17] already highlighted how emotions are playing an increasingly important role in decision-making, as opposed to rational choice and social norms. He considers that emotions, such as love or friendship, hate, or fear, are both a motivating and a distorting force that can affect cognitive rationality and may not find reasons to act and choose rationally. Elster considered sexual desire a basic emotion similar to hunger. According to the author, this can be explained by evolutionary theories, but they cannot explain complex emotions, such as self-deception or the tendency to think the worst as Othello did with Desdemona. For Elster, the benefits of emotions, such as jealousy, are not clear, even more so when they lead not only to kill the rival but also the loved one, as in the previous example. Later research has considered sexual desire not as a basic emotion but rather as a social question specific to human beings; a complex emotion that is shaped in a process of socialization [18].

1.3. The Transformation of Memories and of the Language of Desire

Socio-neuroscience analyzes the processes of conscious versus unconscious volition and social control [19]. In recent years, studies from this approach have highlighted the social dimension of attraction and desire through interventions that promote dialogue on the coercive dominant discourse (hereinafter, CDD) [19,20]. The CDD imposes the link between people with violent attitudes and behaviors and attraction and excitement [21]. In contrast, people and relationships with nonviolent behaviors are presented as less exciting [18]. This discourse is transmitted in numerous daily interactions with peers, television programs, songs, social networks, etc. [22]. The CDD refers to men who are considered nonviolent from the language of ethics (“how good he is”), but the language of desire (“how attractive he is”) is missing [23,24]. On the contrary, when reference is made to men who exercise domination and disdain over women, the language of desire is present, associating them with appeal and excitement [23].

A study using a questionnaire with 100 female adolescents (aged 13–16) in different European secondary schools [21] identified that although nonviolent boys are highly preferred to those with a violent profile, the latter are mostly preferred for hook-ups, and the former are mostly preferred for stable relationships [21]. The CDD influences the socialization of many girls and women in linking desire and attraction to hooking up with boys and men with violent attitudes, developing a process of socialization in the desire identified as a risk factor for gender violence victimization [25].

Another study revealed that the intention to hook up with a boy who has a profile of traditional masculinity related to dominance and disregard decreased significantly after some female university students participated in a dialogic feminist gathering on the “mirage of upward mobility”. This social phenomenon, previously studied as a result of the CDD, is the erroneous perception of some girls that hooking up with a boy who responds to the hegemonic masculinity that has violent and disdainful attitudes towards women increases their status and attractiveness, when in fact what happens is that the status and attractiveness of these girls decreases [26].

It should be noted that some research has shown that women associate hooking up with high regret [27] and disgust [28,29], while those who place importance on caring and love have better sex [30,31]. Research on preventive socialization of gender violence has shown that the positive or negative impact of a relationship does not depend on its duration, on whether it is stable or casual, but on the partner choice [25], as well as on the extent to which dialogue between partners is part of the daily quest for more freedom and equality [18], and how egalitarian dialogue focused on rejecting violence can promote critical thinking that unveils the link between attraction and violence [32].

Following such evidence, this study sheds light on whether participating girls’ memories of past tongue-kissing hook-ups and their intentions and perceptions towards future ones might change due to an increased awareness of tongue kissing certain boys with whom there is no guarantee of a dialogue with validity claims about the type of relationships they have had in recent weeks as a potential source of transmission of COVID-19. In so doing, the present study addresses the gap in changes that the new normal after COVID-19 might promote for hook-ups. This study contributes

to advancing sustainability, particularly that of social development. Its findings point at a potential for participants to make choices based on evidence that can have a positive impact on their health, especially paramount during the pandemic and the new normal. Conclusions also suggest that there is a potential for the new normal to affect participants' intentions regarding future tongue kissing and provide them with more opportunities to freely decide on their relationships.

2. Materials and Methods

In order to get an insight on potential changes in girls' tongue-kissing hook-ups in the new normal, an experimental exploratory study based on pretest and post-test questionnaires has been conducted. This study has been carried out following a qualitative method with communicative approach [33,34], which is oriented towards the analysis of reality as a means to transform it. Through this methodology both researchers and participants share an egalitarian dialogue in order to cocreate scientific knowledge on the object of research and make it more democratic [35]. Following the communicative approach, which includes participants' voices throughout the whole research process [33,34], once the study results were written, they were sent to each participant whose response has been included in the study, so that they could give their consent and agreement to publish such results.

This study has been conducted in Spain. Hence, the words *tongue kissing* and *hook-up* have been chosen as translations from the Spanish terms *morreo* and *ligues esporádicos de marcha nocturna*, respectively. The word *morreo* was chosen due to its hook-up connotation, as it is a type of kiss which would generally not be associated with Romeo and Juliet's kiss. In other words, a *morreo* is linked with coercive environments and, therefore, it is at odds with an ideal and free love as that of Romeo and Juliet. After asking English-speaking girls which word would best convey its meaning, the term *tongue kissing* was chosen. On the other hand, our study specified that it addressed *morreos* in *ligues esporádicos de marcha nocturna*, which can be translated as *one-night stands* or *night party hook-ups*. After asking English-speaking girls what the best translation would be, the term *hook-ups* was established.

2.1. Participants

This study's participants are heterosexual females between the ages of 18 and 30. A few participants were purposely contacted initially, and the rest were then included through a snowballing process. Initially, 56 girls filled in the informed written consent, which was a requirement for participating in the study. Among them, 34 filled in the pretest questionnaire and, among these, 26 completed the post-test. From these 26 girls, two were dismissed because they did not give consent to publish their answers. Among the 24 remaining, three were dismissed, because they had not reported any tongue-kissing experience. Another one was discarded because she did not fit in the profile aimed for the study (she was above 30 years old). Hence, 20 participants were included in the analysis. Participants were between 23 and 29 years old. They were all Spanish and lived in different cities at the time of the study: Barcelona, Bilbao, Madrid, Reus, and Valencia. Numbers have been used in this article to refer to the participants.

2.2. Instrument

Two questionnaires were created using the Google Forms tool, one for the pretest and another one for the post-test. The first questionnaire was divided into six main blocks. The first block pertained to demographic information (age, gender, city of residence, and nationality). The second block asked how many tongue-kissing hook-ups they had had (0, 1–5, 5–15, or more than 15). The third one was an open question that asked participants to think about the three most exciting tongue-kissing experiences they had had and to put a reference for them to remember who they were talking about, as the rest of the questions would refer to those three. The fourth asked them to grade each of the chosen experiences from 0 to 10 (being 0 the lowest and 10 the highest). The fifth asked them whether they would repeat each of those experiences, *for sure*, *maybe*, and *no* being the options to respond. The last block concerned how they felt when remembering such experiences. In this block, participants had

two questions. The first one provided them with ten adjectives, five related to rejection feelings (*disgust, shame, humiliation, regret, and sadness*), and the other five related to attraction feelings (*desire, excitement, fun, pleasure, and joy*). They could choose as many adjectives as they wanted for each tongue-kissing experience. The second question was open-ended and asked the girls to add anything else they felt when remembering those experiences.

The post-test questionnaire was very similar but had slight modifications with five blocks in total. In the first block, the girls encountered a 43-word text explaining that COVID-19 is transmitted mainly through saliva, and that tongue kissing unknown people is a source of transmission. This short text served as an introduction to a 35-second video about an experiment in which a group of ten people in Japan gathered to have a meal together. One of them applied invisible ink in his hands. After 30 min, black lighting was used, evidencing that the ink was everywhere and on each person who was there. After reading the text and watching the video, the girls were asked how they remembered what they considered as the three most exciting tongue-kissing experiences they referred to in the pretest. After this question, the last three blocks from the pretest questionnaire were included.

Both the pretest and the post-test were filled in between 15 May and 4 June 2020. The minimum time interval between submitting the pretest and the post-test was 5 min, and the maximum time interval was six days, 23 h and 57 s.

2.3. Data Collection

Due to the confinement situation, data were collected virtually. To do so, the researchers first sent the informed written consent forms with the study's information, their rights as participants, and questions regarding consent in Google Forms format to several girls through WhatsApp. Some of these girls also sent the informed written consent to some of their contacts. Once they filled in the informed written consent, in which they wrote down their email address, researchers emailed them with the pretest questionnaire. Right after they completed the pretest questionnaire, researchers sent another email with the post-test questionnaire. Participants were encouraged to ask questions to the researchers throughout the whole study through WhatsApp or email.

2.4. Data Analysis

Data from both the informed written consent and the two questionnaires were automatically transferred into three separate Excel sheets. After reviewing all three, the researchers organized the information of those participants who had filled in both questionnaires and who had given permission to publish their results in another Excel sheet. The Excel sheet contained line-by-line answers from each participant. Their responses to each question in the pretest and the post-test were paired together in order to better identify whether and how many participants changed them. Changes were analyzed numerically (how many girls changed in each category, how many adjectives were changed, etc.), as well as qualitatively by looking at their comments. The current study is not and does not pretend to be statistically representative. Thus, its significance cannot be generalized to changes in patterns in society.

2.5. Ethics Statement

The study was fully approved by the Ethics Board of the Community of Researchers on Excellence for All (CREA). The participants provided their informed written consent to participate in this study. The information provided in the consent form explained the goal of the study, the voluntary nature of participation, the possibility to withdraw from it at any time, the procedure to collect the data, the materials and measures to be used, the permission to publish the data obtained, and the anonymity and privacy statement. Research participants had time to read the consent form and, due to the current situation, to ask questions to the researchers by email or WhatsApp.

3. Results

Among the 20 participants who completed both questionnaires and gave their consent for their results to be published, 12 have shown at least one change regarding increased rejection in the memory of past tongue-kissing (*morreo*) hook-ups and/or in the intention and/or perception towards future tongue kissing. The remaining eight participants have not shown any increased rejection change. Hence, in this article, only the results pertaining to the 12 participants' changes will be reported, as those are the changes that are of most interest for this particular study. Nonetheless, these 12 participants have also shown some changes related to increased attraction, which are also included in the results presented here, although not centrally discussed. The in-depth analysis of increased attraction changes could be the object of further research and another article. We consider increased rejection changes to be those regarding lower grades to tongue-kissing experiences, less willingness to repeat the experiences, more feelings of rejection associated with them, or less feelings of attraction associated with them. In turn, we consider increased attraction changes as those where girls reported higher grades regarding the experiences, more willingness to repeat them, less feelings of rejection associated with them, or more feelings of attraction associated with them. We have divided this section into four main categories regarding the observed changes: change in the attractiveness towards the tongue-kissing hook-ups, change in whether they would repeat them or not, change in what they feel when remembering them, and further reflections from participants.

3.1. Changes in Attractiveness Towards Tongue-Kissing Hook-Ups

Participants were asked to choose and grade from 0 to 10 what they considered as the three most exciting tongue-kissing hook-ups (which would be referred to as A, B, and C). A hyphen was inserted when no scores were given. Participants' responses to this question can be seen in Table 1. This category was the one in which the least changes have been observed. Out of the 12 participants presented in this article, two (P9 and P12) increased one of their grades, while three (P1, P2 and P11) gave lower grades in the post-test than in the pretest to at least one of their tongue-kissing experiences. Among them, P9 and P12 showed a one-point increase regarding one of her experiences, whereas P1 showed a one-point decrease regarding one of her experiences. Yet the change between the pretest and the post-test was bigger for the remaining two: P11 went from 8, 9, and 8.5 to 5, 6, and 5, respectively; P2 went from 7 and 8 (she only referred to two experiences) to 0 in both of them. Because of these changes, the average of all grades among the 12 girls went from 7.43 in the pretest to 5.9 in the post-test.

Table 1. Attractiveness of tongue-kissing experiences.

Participants	PRETEST			POST-TEST		
	A	B	C	A	B	C
P1	6	9	8	5	9	8
P2	7	8	-	0	0	-
P3	8	7	5	8	7	5
P4	0	-	-	0	-	-
P5	8	-	-	8	-	-
P6	7	8	6	7	8	6
P7	-	-	-	0	0	0
P8	-	8	8	-	8	8
P9	6	9	6	7	9	6
P10	7	9	8	7	9	8
P11	8	9	8.5	5	6	5
P12	10	8	9	10	9	9
Average pretest			7.43	Average pretest 5.90		

3.2. Changes in Whether They Would Do It Again or Not

Participants had three choices to express whether they would repeat the same tongue-kissing hook-ups now: *for sure* (FS), *maybe* (M), and *no* (N). Answers within this category can be observed in Table 2. Among these 12 girls, all changes referred to increased rejection, that is, none changed from *no* or *maybe* in the pretest to *maybe* or *for sure* in the post-test. Few girls showed a change in this category, as most of them (P1, P2, P3, P4, P6, P7, P8, P9, P10, and P11) said *no* in the pretest regarding at least one of the tongue-kissing experiences and maintained the *no* in the post-test.

On the other hand, five girls (P3, P5, P9, P10 and P12) did show a change from the pretest to the post-test in at least one tongue-kissing experience. Of these, all the ones who said *maybe* in the pretest shifted to *no* in the post-test. Regarding those who answered *for sure* in the pretest, four changed to *maybe* in the post-test. As for the fifth one (P12), whereas she said *for sure* regarding the three experiences in the pretest, in the post-test she changed one to *maybe* and maintained two of them as *for sure*.

Overall, the number of *for sure* and *maybe* answers decreased from 20% to 10%, and from 20% to 13%, respectively. Conversely, the number of *no* answers increased in the post-test from 60% to 77%.

Table 2. Whether or not participants would repeat the tongue-kissing hook-ups.

Participants	PRETEST			POST-TEST		
	A	B	C	A	B	C
P1	N	FS	M	N	FS	M
P2	N	N	-	N	N	-
P3	M	M	N	N	N	N
P4	N	-	-	N	-	-
P5	M	-	-	N	-	-
P6	N	N	N	N	N	N
P7	N	N	N	N	N	N
P8	-	N	N	-	N	N
P9	FS	M	N	M	N	N
P10	N	M	FS	N	N	M
P11	N	N	N	N	N	N
P12	FS	FS	FS	FS	M	FS
N = 18 (60%) M = 6 (20%) FS = 6 (20%) N = 23 (77%) M = 4 (13%) FS = 3 (10%)						

3.3. Change in Feelings Associated with Memories of Tongue-Kissing Hook-Ups

In order to ask the girls what they felt when remembering the three most exciting tongue-kissing hook-ups, we first presented them ten adjectives among which they could choose as many as they wanted. Five of those adjectives expressed feelings of rejection: *disgust* (Di), *shame* (Sh), *humiliation* (Hu), *regret* (R), and *sadness* (Sa); and the other five expressed feelings of attraction: *desire* (De), *excitement* (E), *fun* (F), *pleasure* (P), and *joy* (J). The answers to this question can be seen in Table 3.

Among the 12 girls, eight (67%) showed an increased rejection change in at least one adjective. From these, two (P3 and P11) replaced attraction adjectives with rejection ones in the post-test, for instance replacing *fun* and *excitement* with *disgust*, *regret*, *shame*, and *sadness*. On the other hand, three (P5, P7, and P8) included at least one rejection adjective in the post-test, such as *disgust*, *sadness*, or *regret*. The other three (P1, P9, and P12) removed at least one attraction adjective from the pretest, such as *joy* or *excitement*. Moreover, from those who had initially selected at least one attraction adjective, two (P3, P11) ended up with no attraction adjectives in the post-test. P3, for instance, changed from *fun*, *excitement*, and *shame* for each tongue-kissing experience in the pretest to *shame*, *shame*, and *disgust* respectively in the post-test. Nevertheless, two participants (P1 and P6) showed an increased attraction change, as they remembered their tongue-kissing experiences with more rejection

in the pretest than in the post-test. In this vein, in the post-test, both participants removed a rejection feeling, such as *regret* or *sadness*, and replaced it with an attraction one, such as *joy* or *fun*.

Overall, among the 12 participants, the use of attraction adjectives decreased from 58% to 43% in the post-test, whereas the use of rejection adjectives increased from 42% to 57% in the post-test. Therefore, whereas in the pretest attraction adjectives were used more than rejection ones, we observed a reversing trend in the post-test. Moreover, while the most used adjective in the pretest was *excitement* (18%), the ones most used in the post-test were *shame* (17%) and *regret* (17%), also evincing the reversing trend in the post-test.

Table 3. Adjectives associated with tongue-kissing hook-ups' memories.

	PRETEST			POST-TEST		
	A	B	C	A	B	C
P1	Sh/E	De/E/P/J	De/F/R	Sh/P	De/E/P	E/F/J
P2	Sh/R	Sh/R	-	Sh/R	Sh/R	-
P3	F	E	Sh	Sh	Sh	Di
P4	Di/Sh/R	-	-	Di/Sh/R	-	-
P5	De/F	-	-	Di/De/F	-	-
P6	De	-	Sa	De	-	F
P7	Di/Sh/Hu/R	Di/Sh/Hu/R	Di/Sh/Hu/R	Di/Sh/Hu/R/Sa	Di/Sh/Hu/R/Sa	Di/Sh/Hu/R/Sa
P8	-	F	F	-	F/R	F/R
P9	E/P/J	E	F	P	P	F
P10	E/R	De/E	E/J	E/R	De/E	E/J
P11	Sh/F	Sh/Sa	E/R	Sh/R/Sa	Sh/R/Sa	Sh/R/Sa
P12	De/E/F/J	De/E/F/J	De/E/F/J	De/F/J	De/F/J	De/F/J
ATTID	De = 8 (12%); E = 12 (18%); F = 10 (15%); P = 2 (3%); J = 6 (9%) TOTAL = 38 (58%)			De = 7 (10%); E = 5 (7%); F = 9 (13%); P = 4 (6%); J = 5 (7%) TOTAL = 30 (43%)		
REJIR	Di = 4 (6%); Sh = 10 (15%); Hu = 3 (5%); R = 9 (14%); Sa = 2 (3%) TOTAL = 28 (42%)			Di = 6 (9%); Sh = 12 (17%); Hu = 3 (4%); R = 12 (17%); Sa = 6 (9%) TOTAL = 39 (57%)		

Attraction (ATT) = Desire (De); Excitement (E); Fun (F); Pleasure (P); Joy (J); Rejection (REJ) = Disgust (Di); Shame (Sh); Humiliation (Hu); Regret (R); Sadness (Sa).

3.4. Further Reflections from Participants

Girls had two occasions in which they could add any comments or reflections they wanted to: in the first question they had three blank spaces (one for each experience) in which they could write anything they wanted about the tongue-kissing experiences; in the last question, after choosing the feelings associated with such experiences, they were asked to add, if they wanted to, any other comment about what they felt when remembering them. Seven girls showed a change in at least one of the comments from the pretest to the post-test. On the one hand, some girls explained that their memory of at least one of the tongue-kissing experiences changed. On the other hand, some expressed that, while none of their past memories had changed, their intentions and perceptions towards future tongue kissing did change.

3.4.1. Changing the Memory of Past Tongue-Kissing Hook-Ups

Four (P1, P7, P8, and P10) of the 12 girls presented here expressed some kind of change when referring to the memories of the past tongue-kissing experiences in the first and/or last question. Overall, feelings of rejection, such as “disgust”, increased in the post-test as compared to the pretest. P7, for instance, included some adjectives in the post-test that showed rejection towards the three previous tongue-kissing experiences. In answer to the first question in the pretest, she wrote down the place where they occurred, while in the post-test she wrote down they were “disgusting” (P7, post-test). As for the last question, whereas in the pretest she had written she felt “shame” (P7, pretest) regarding only the first experience, in the post-test she wrote she felt “disgust” (P7, post-test) regarding all three experiences. Even though she already showed some rejection feelings towards some tongue-kissing experiences in the pretest, those seemed to intensify and generalize to the three experiences, highlighting the feeling of disgust she now felt.

On the other hand, some girls changed not only in terms of increasing rejection in the post-test but also in terms of decreasing or, at least, focusing less on attraction-related feelings. Such is the case of P10, who showed changes in the last question when referring to the first and second tongue-kissing

experiences. Regarding the first one, in the pretest she expressed that, even though she regretted it, it was a very exciting experience:

“At that moment it was something which excited me a lot, hence, I still remember it that way. But then that person turned out to be cheating on someone, and that’s why I regret it. Although I still have that memory of excitement”

(P10, pretest).

In the pretest, she stated that although she regretted tongue kissing him because he was with someone else, she still remembered it as a very exciting experience, as she remarked. Yet in the post-test, the remorse feeling seemed to intensify, whereas there was no mention whatsoever to the excitement in the memory:

“if I already thought it was not worth it, now in a situation in which this person could pass me on the virus and hence my family would be in danger, I would never do it again”

(P10, post-test).

Compared to the pretest, two main changes can be observed in P10’s comment in the post-test. On the one hand, although in the pretest she did say she regretted the tongue-kissing hook-up, she did not say it was not worth it. Nonetheless, in the post-test she did. On the other hand, in the pretest she had mentioned how exciting it was twice, while in the post-test she did not show any feeling of excitement, passion, or similar.

3.4.2. Projecting Changes for the Future

Three girls (P4, P5, and P6) showed no changes towards the memories of the past tongue-kissing experiences. However, they explicitly acknowledged in the first and/or last question that, while those memories remained the same, reading the short text and watching the video changed their intentions and perceptions towards future tongue-kissing hook-ups. The text and the video made some of them reflect on the risks of tongue kissing in the new normal after COVID-19. Such is the case of P4, who showed no change regarding the memory of the only tongue-kissing experience she referred to because she already said in the pretest that it was not exciting and that, in fact, it was the result of her friends’ and the boy’s pressure. Nonetheless, in the post-test she expressed that she felt more conscious of the danger of tongue-kissing hook-ups due to the risk of contagion:

“[I feel] the same, taking into account that from the beginning I remember it as something negative. But the video makes me be aware of the danger of contagion in these casual relationships”

(P4, post-test).

Although she already associated rejection feelings with that experience in the pretest and, hence, remembered it in equally negative terms in the post-test, her sense of danger in tongue-kissing hook-ups as a potential way of getting infected increased in the post-test.

Other girls, in turn, stated that even though their memories of past experiences also remained the same, rejection feelings towards future potential tongue kissing increased. P6, for instance, did not write anything in the pretest regarding the first question but said the following in the post-test:

“I remember them [the three experiences] the same, my feeling of the memory doesn’t change. But when thinking of doing it now in the post-COVID period with someone I don’t know, it makes me feel ‘disgust’.”

(P6, post-test).

She acknowledges that, while her memories of the three experiences have not changed from the pretest to the post-test, she feels disgust when thinking of tongue kissing an unknown person in the new normal, a thought that, in the pretest, she had not expressed.

Similarly, although P5 acknowledged in the post-test that she remembered the tongue-kissing hook-up the same way as she did in the pretest, her future relationships might change:

“I think because of the video I can’t stop thinking of the typical dentist’s commercial with cartoons of bacteria jumping in the teeth . . . But let’s say that today, I could go party and that scenario with A repeated, for as attractive I thought he was, I would repress myself and, for precaution, I wouldn’t do it. I’m a bit scared of infecting my family and, to be honest, my desire to get into mass events and tongue kiss random people is gone”

(P5, post-test).

Her example clearly shows that she is more aware of the risks of similar situations for herself and her family, including explicit images of what the risks might look like in the mouth. In addition, in the post-test, she clarifies that she would not tongue kiss A, even though she still considered him attractive. She stated that she no longer desires to get into similar situations due to the increased worry about COVID-19 contagion.

4. Discussion

There is increasing literature on how COVID-19 is changing and will continue to change habits and behaviors in stable relationships [2,4]. However, a gap was identified regarding changes in hook-ups and, in particular, in tongue kissing. This article aimed at contributing to this gap by showing how a group of young heterosexual women might change both memories of past tongue-kissing hook-ups and intentions and perceptions towards future ones, after increasing awareness of tongue kissing as a potential source of transmission. Advancements in this issue can contribute to fostering a sustainable social development that allows citizens to take action in their own lives, while promoting social transformations on the fields of health and intimate relationships.

Overall, findings report that 12 girls out of 20 showed changes related to increased rejection between the pretest and the post-test. Some of these girls showed greater disgust and regret and less excitement and desire towards some or all of the tongue-kissing hook-ups they had referred to in the study. Others did not change their memories of past experiences but said they felt disgust when imagining tongue kissing boys they did not know in the new normal. Moreover, some girls indicated that they would not repeat past situations in the present or future.

Their changes are very significant, especially taking into account that the girls were asked to choose among the three most exciting tongue-kissing hook-ups. The account of P10, for instance, shows that an increased awareness of tongue kissing people with whom there is no guarantee of a dialogue based on validity claims about past relationships as a potential source of COVID-19 transmission replaced the excitement she first associated with one of the experiences. In line with research on the CDD [21,36], which pressures many girls to hook up with boys who disdain women, she explained that although she later found out he was cheating on someone else, it was an exciting tongue-kissing hook-up. The influence of the CDD might help explain why in some cases we do not make rational decisions, as Elster’s example of Othello and Desdemona [17]. In the case of P10, while she regretted having made the decision of tongue kissing a boy with disdainful attitudes towards women, she liked it, in line with studies on the CDD [18]. Nonetheless, in the post-test, thinking of the health risks she took for herself and her family, she states that the hook-up was even less worthy. This might not only point to a change induced by rationality but also by emotions [17]. Whereas this change does not mean that she no longer remembers that experience as exciting, that aspect of the tongue-kissing hook-up is left out when remembering it in the post-test. Having participated in this study might provide her with an opportunity to look at the experience differently and remember more critical memories [36].

However, almost none of the girls showed increased rejection changes in all categories, and some of the girls who showed increased rejection changes also showed increased attraction ones. It is noteworthy that the grades assigned to the different tongue-kissing experiences changed the least, while some of the same girls who maintained them, which were overall quite high, stated they would

not repeat the experiences again. Although more research is needed to understand such contradictions, a plausible explanation is that the high scores respond to the expectations that are placed by the CDD in hook-ups. It might also be associated with the mirage of upward mobility phenomenon—thinking that those experiences increased their attractiveness. In addition, we also saw contradictions in the adjectives some of the girls chose to describe how they felt when remembering past experiences. While there were already some contradictions in the pretest, where girls put adjectives like shame and fun for the same tongue-kissing hook-up, these contradictions increased in the post-test. This might also be a result of the CDD, which pressures many girls to tell their friends they felt a lot of pleasure while, in reality, many of them felt disgust [25]. Some girls in this study might have started to transform autobiographical memories that were influenced by the fake narratives they told their friends and start remembering them as they really were—as something disgusting.

On the other hand, some girls did not express a change in the memories associated with past tongue-kissing experiences. Yet after reading the text and watching the video, they showed different intentions and perceptions regarding potential future tongue kissing. Some of them explained that, while they did not feel disgust towards past tongue-kissing hook-ups, they did feel it when imagining present or future ones. When thinking of the risks they would run when tongue kissing and the disgust related to it due to COVID-19 or other infections, one of them said explicit images of the pathogens came to her mind. In light of research that reports that increased sensitivity to pathogen disgust was among the psychological predictors of the adoption of health behaviors [9], having images of this might be a predictor of her future intentions for health prevention.

Some limitations of the study must be addressed. On the one hand, although the findings conclude that there is a change in their memories, perceptions, and intentions regarding tongue-kissing hook-ups, this study does not determine the stability and sustainability of such changes. Another limitation is that the study is based on participants' responses of their own self-perception regarding delicate personal experiences, which indicates that there can be some bias in their answers to the questionnaires. It could be argued that in some cases there might be discrepancies between what the girls reported they had felt in the tongue-kissing experiences and what they actually felt in those experiences. Last, given the small number of participants, these findings are not statistically representative. Hence, we cannot state that these changes are generalizable to a wider population. However, our aim was not to study changes related to tongue-kissing hook-ups in the whole population but among a small group of girls.

Further research should study the stability and sustainability of the changes reported here and the impact that such an increased awareness will have in these and other girls' future relationships, especially in terms of prevention of health risks and of gender violence victimization. In addition, future research in this line should focus more on whether the tongue-kissing hook-ups the girls are asked to remember respond to the models promoted by the CDD, that is, to violent and hegemonic masculinities who disdain and disrespect women, or not. Determining this might help understand the influence of the CDD in girls' health risk taking when tongue kissing. It might also help provide evidence on how increased awareness of tongue kissing as a source of transmission might contribute to girls' transformation of the language of desire, rejecting violent masculinities, and feeling desire towards egalitarian ones. On the other hand, a similar study with a sample that is statistically representative would help determine whether these findings are generalizable to the whole population or not. In addition, more research should be conducted in order to better understand the contradictions found within and between the different categories. Furthermore, while for this particular study the authors were interested in changes regarding tongue-kissing hook-ups among girls, it would be interesting and necessary to address the same issue among boys in future research.

Bearing all the above-mentioned in mind, it needs to be clarified that this study does not aim at criticizing tongue kissing and hooking up or stopping girls from doing it. The preventive socialization of gender violence respects all girls' and boys' freedom to hook up or have the relationships they want with whomever they want to [18,25]. What this line of research aims at is for girls to have all the information about the potential risks and consequences of engaging in sexual-affective relationships

with boys who respond to the traditional masculinity, so that they can make the best, informed choices if they so desire. As this line of research has always stated, the potential risks or dangers of a sexual-affective relationship does not depend on the relationship's duration but on the choice of the partner; more specifically, on whether the partner is someone who despises, humiliates, or cheats on other people or not [18,25]. Inevitably, however, we are talking about a saliva-transmitted virus. This means that the risk of getting infected by it increases when tongue kissing someone whose previous hook-ups are unknown. Previous studies have highlighted the role of dialogue and communication based on validity claims with partners in order to establish consensus on the conditions that will be met in order to engage in a relationship [2]. This can also be applied to casual-relationship partners, as long as those partners guarantee that there is consensus without coercion and honesty in such a dialogue [12]. Having this information might provide these girls with the tools to think about the risks before engaging in tongue-kissing hook-ups and, most importantly, to choose partners with whom they can establish a dialogue about their previous relationships based on honesty and consensus without coercion. Importantly, establishing such dialogues might help them confront the CDD and make decisions based on freedom and equality [23].

Last, it needs to be clarified that these findings do not entail a future decrease in COVID-19 (or other viruses) contagion nor an improvement in the quality of such relationships in society. Rather, it entails a change in some of this study's participants' perceptions and memories regarding tongue-kissing hook-ups, which could imply potential changes related to COVID-19 contagion and to tongue-kissing hook-ups. If further research showed that the findings presented in this study are a generalized tendency, which remains yet to be explored, the significance of such changes would lie on deep social transformations, which could be manifested in a decrease in the contagion of COVID-19 or similar viruses and an improvement in the quality of such relationships.

Author Contributions: We declare that all authors have made substantial contributions. L.R.-E. contributed to the conceptualization of the study under the research line of preventive socialization of gender violence in the framework of the Ramon y Cajal grant. E.T.-G. and G.L.d.A.-J. collected the data. L.R.-E., E.T.-G., G.L.d.A.-J. and N.G.-F. contributed to the formal analyses, discussion of the data, and drafted the manuscript, revised it and made edits for important intellectual content. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the European Social Fund and Spanish Agency of Research under the Ramon y Cajal grant number RYC-2015-17533.

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

References

1. Berwick, D.M. Choices for the “New Normal”. *JAMA* **2020**, *323*, 2125–2126. [\[CrossRef\]](#)
2. Van Bavel, J.J.; Baicker, K.; Boggio, P.S.; Capraro, V.; Cichocka, A.; Cikara, M.; Crockett, M.J.; Crum, A.J.; Douglas, K.M.; Druckman, J.N.; et al. Using social and behavioural science to support COVID-19 pandemic response. *Nat. Hum. Behav.* **2020**, *4*, 460–471. [\[CrossRef\]](#)
3. West, R.; Michie, S.; Rubin, G.J.; Amlôt, R. Applying principles of behaviour change to reduce SARS-CoV-2 transmission. *Nat. Hum. Behav.* **2020**, *4*, 451–459. [\[CrossRef\]](#)
4. Yuksel, B.; Ozgor, F. Effect of the COVID-19 pandemic on female sexual behavior. *Int. J. Gynaecol. Obstet.* **2020**, *150*, 98–102. [\[CrossRef\]](#)
5. Cori, L.; Bianchi, F.; Cadum, E.; Anthonj, C. Risk perception and COVID-19. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3114. [\[CrossRef\]](#)
6. Deusdad, B. COVID-19 and care homes and nursing homes crisis in Spain: Ageism and scarcity of resources. *Res. Ageing Soc. Policy* **2020**, *8*, 142–168. [\[CrossRef\]](#)
7. Cirrincione, L.; Plescia, F.; Ledda, C.; Rapisarda, V.; Martorana, D.; Moldovan, R.E.; Theodoridou, K.; Cannizzaro, E. COVID-19 pandemic: Prevention and protection measures to be adopted at the workplace. *Sustainability* **2020**, *12*, 3603. [\[CrossRef\]](#)

8. Głabska, D.; Skolmowska, D.; Guzek, D. Population-based study of the influence of the COVID-19 pandemic on hand hygiene behaviors—Polish adolescents' COVID-19 experience (PLACE-19) study. *Sustainability* **2020**, *12*, 4930. [\[CrossRef\]](#)
9. Shook, N.; Sevi, B.; Lee, J.; Fitzgerald, H.N.; Oosterhoff, B. Who's listening? Predictors of concern about COVID-19 and preventative health behaviors. *PsyArXiv Prepr.* **2020**. [\[CrossRef\]](#)
10. Beck-Gernsheim, E.; Beck, U. *The Normal Chaos of Love*; Polity Press: Cambridge, UK, 1995; p. 97.
11. Beck, U. *Risk Society. Towards a New Modernity*; SAGE Publications Ltd.: London, UK, 1992; p. 19.
12. Soler, M.; Flecha, R. Desde los actos de habla de Austin a los actos comunicativos: Perspectivas desde Searle, Habermas y CREA. *Rev. Signos* **2010**, *43*, 363–375. [\[CrossRef\]](#)
13. Flecha, R.; Gómez, J.; Puigvert, L. *Contemporary Sociological Theory*; Peter Lang: New York, NY, USA, 2003; p. 90. ISBN 9780820467955.
14. Elster, J. *Nuts and Bolts for the Social Sciences*; Cambridge University Press: New York, NY, USA, 1989; p. 113. ISBN 9780521376068.
15. Pulido, C.; Villarejo-Carballido, B.; Redondo-Sama, G.; Gómez, A. COVID-19 infodemic: More retweets for science-based information on coronavirus than for false information. *Int. Sociol.* **2020**, *3*, 377–392. [\[CrossRef\]](#)
16. Pulido, C.; Villarejo-Carballido, B.; Redondo-Sama, G.; Guo, M.; Ramis, M.; Flecha, R. False news around COVID-19 circulated less on Sina Weibo than on Twitter. How to overcome false information? *Int. Multidiscip. J. Soc. Sci.* **2020**, *0*, 1–22. [\[CrossRef\]](#)
17. Elster, J. *Alchemistries of the Mind: Rationality and the Emotions*; Cambridge University Press: Cambridge, UK, 1998; p. 411. ISBN 9780521642798.
18. Gómez, J. *Radical Love: A Revolution for the 21st Century*; Peter Lang: New York, NY, USA, 2015; p. 19. ISBN 9781433126499.
19. Puigvert-Mallart, L.; Flecha, R.; Racionero-Plaza, S.; Sordé-Martí, T. Socioneuroscience and its contributions to conscious versus unconscious volition and control. The case of gender violence prevention. *AIMS Neurosci.* **2019**, *6*, 204–218. [\[CrossRef\]](#) [\[PubMed\]](#)
20. Racionero-Plaza, S.; Ugalde, L.; Merodio, G.; Gutiérrez-Fernández, N. “Architects of their own brain.” social impact of an intervention study for the prevention of gender-based violence in adolescence. *Front. Psychol.* **2020**, *10*, 3070. [\[CrossRef\]](#)
21. Puigvert, L.; Gelsthorpe, L.; Soler-Gallart, M.; Flecha, R. Girls' perceptions of boys with violent attitudes and behaviours, and of sexual attraction. *Palgrave Commun.* **2019**, *5*, 1–12. [\[CrossRef\]](#)
22. Fedele, M.; Masanet, M.-J.; Ventura, R. Negotiating love and gender stereotypes among young people: Prevalence of “amor ludens” and television preferences rooted in hegemonic masculinity. *Masc. Soc. Chang.* **2019**, *8*, 1. [\[CrossRef\]](#)
23. Flecha, R.; Puigvert, L.; Rios, O. The new alternative masculinities and the overcoming of gender violence. *RIMCIS* **2013**, *2*, 88–113. [\[CrossRef\]](#)
24. Rios-González, O.; Peña Axt, J.C.; Sánchez, E.D.; De Botton Fernández, L. The language of ethics and double standards in the affective and sexual socialization of youth. communicative acts in the family environment as protective or risk factors of intimate partner violence. *Front. Sociol.* **2018**, *3*. [\[CrossRef\]](#)
25. Torras-Gómez, E.; Puigvert, L.; Aiello, E.; Khalfaoui, A. Our right to the pleasure of falling in love. *Front. Psychol.* **2020**, *10*, 3068. [\[CrossRef\]](#)
26. Puigvert, L. Female university students respond to gender violence through dialogic feminist gatherings. *Int. Multidiscip. J. Soc. Sci.* **2016**, *5*, 183–203. [\[CrossRef\]](#)
27. Campbell, A. The morning after the night before: Affective reactions to one-night stands among mated and unmated women and men. *Hum. Nat.* **2008**, *19*, 157–173. [\[CrossRef\]](#)
28. Al-Shawaf, L.; Lewis, D.M.G.; Buss, D.M. Sex differences in disgust: Why are women more easily disgusted than men? *Emot. Rev.* **2018**, *10*, 149–160. [\[CrossRef\]](#)
29. Kennair, L.E.O.; Wyckoff, J.P.; Asao, K.; Buss, D.M.; Bendixen, M. Why do women regret casual sex more than men do? *Personal. Individ. Differ.* **2018**, *127*, 61–67. [\[CrossRef\]](#)
30. Paik, A. “Hookups,” dating, and relationship quality: Does the type of sexual involvement matter? *Soc. Sci. Res.* **2010**, *39*, 739–753. [\[CrossRef\]](#)
31. Carlson, D.L.; Soller, B. Sharing's more fun for everyone? Gender attitudes, sexual self-efficacy, and sexual frequency: Gender attitudes, self-efficacy, and sexual frequency. *Fam. Relat.* **2019**, *81*, 24–41. [\[CrossRef\]](#)

32. Aiello, E.; Puigvert, L.; Schubert, T. Preventing violent radicalization of youth through dialogic evidence-based policies. *Int. Sociol.* **2018**, *33*, 435–453. [\[CrossRef\]](#)
33. Gómez-González, A. Science with and for society through qualitative inquiry. *Qual. Inq.* **2019**. online first, UNSP 107780041986300. [\[CrossRef\]](#)
34. Gómez, A.; Padrós, M.; Ríos, O.; Mara, L.-C.; Pukepuké, T. Reaching social impact through communicative methodology. Researching with rather than on vulnerable populations: The roma case. *Front. Educ.* **2019**, *4*, 9. [\[CrossRef\]](#)
35. Torras-Gómez, E.; Guo, M.; Ramis, M. Sociological theory from dialogic democracy. *Int. Multidiscip. J. Soc. Sci.* **2019**, *8*, 216. [\[CrossRef\]](#)
36. Racionero-Plaza, S.; Ugalde-Lujambio, L.; Puigvert, L.; Aiello, E. Reconstruction of autobiographical memories of violent sexual-affective relationships through scientific reading on love: A psycho-educational intervention to prevent gender violence. *Front. Psychol.* **2018**, *9*, 1996. [\[CrossRef\]](#)



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).