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A Community Stakeholder Analysis of Drug Resistance Strategies of Rural Native Hawaiian Youth

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Abstract

This study examines and validates the drug resistance strategies identified by rural Hawaiian youth from prior research with a sample of community stakeholders on the Island of Hawai'i. One hundred thirty-eight stakeholders with a vested interest in reducing youth substance use (i.e., teachers, principals, social service agency providers, and older youth) completed a web-based survey comprised of 15 drug-related problem situations and 413 responses developed by Hawaiian youth. The findings corroborated the youth-focused findings from prior research. Differences in the endorsement of different strategies were examined based on gender, ethnicity, and age of the stakeholders. Implications for culturally grounded drug prevention in rural Hawaiian communities are discussed.

Keywords

Community; Native Hawaiian; Drugs; Prevention; Youth

Introduction

In numerous studies, Native Hawaiian youth have been found to report the highest rate of gateway drug use among youth ethnic groups in Hawai'i (e.g., Glanz, Maskarinec, & Carlin, 2005; Glanz, Mau, Steffen, Maskarinec, & Arriola, 2007; Kim, Ziedonis, & Chen, 2007; Makini et al., 2001; Mayeda, Hishinuma, Nishimura, Garcia-Santiago, & Mark, 2006; Mokuau, 2002; Wong, Klinge, & Price, 2004), and yet, research has lagged dramatically in terms of identifying culturally appropriate drug prevention interventions for these youth (Edwards, Giroux, & Okamoto, 2010; Okamoto, 2011; Rehuher, Hiramatsu, & Helm, 2008). In an examination of the National Registry of Evidence-Based Programs and Practices from

the Substance Abuse and Mental Health Services Administration, Rehuher et al. found only two programs that referenced Native Hawaiian youth, and neither of them were specific to the cultural worldviews or beliefs of the population. Similarly, Edwards et al. identified only four programs focused on Hawaiians in the research literature, and all of them were in the preliminary stages of development.

The purpose of this study is to conduct a community stakeholder analysis of drug resistance strategies developed by middle or intermediate school students on the Island of Hawai'i. Community stakeholders with a vested interest in reducing youth substance use (i.e., teachers, principals, school counselors, social service providers, and older youth) validated resistance strategies used in 15 hypothetical drug-related problem situations developed by youth on the Island of Hawai'i in earlier phases of the overall study (Okamoto, Helm, Giroux, Edwards, & Kulis, 2010). The present study represents the final stage in a multi-year, pre-prevention study and therefore will have strong implications for the development of school-based, culturally grounded drug prevention programming for rural Hawaiian youth.

Promoting Social Competence and Resilience of Native Hawaiian Youth

Promoting Social Competence and Resilience of Native Hawaiian Youth (PSCR) is a 5-year pre-prevention study funded by the National Institute on Drug Abuse, with the focus on examining the social and cultural context of substance use for rural Hawaiian youth and communities. Year 1 of the study focused on identifying specific details of the social and cultural context of drug use for Hawaiian youth through a series of focus groups in middle and intermediate schools on the Island of Hawai'i. Research from early stages of the study identified a typology of situations where drugs are offered to youth (i.e., indirect versus direct drug offer situations; Helm et al., 2008), as well as an emerging typology of drug resistance strategies (i.e., overt/confrontational versus non-confrontational approaches; Okamoto, Helm, Po'a-Kekuawela, Nebre, & Chin, 2010). From the focus group data, 62 discrete drug-related problem situations were developed and were included in a survey that asked youth to identify the frequency of exposure to drug offers and the perceived difficulty in refusing drugs within these situations. The survey was administered to youth within the same schools in Year 2 of the study ($N = 249$). Compared with their non-Hawaiian counterparts, the majority of the drug-related problem situations were experienced significantly more by Hawaiian/Part Hawaiian youth (Okamoto, Helm, Giroux, Edwards, et al., 2010). Further, these situations were related to higher recent (30 day) use of alcohol and marijuana for rural Hawaiian youth (Okamoto, Kulis, Helm, Edwards, & Giroux, in press).

Youth in Year 3 of the study ($N = 64$) developed responses to 15 of the most frequently experienced and/or most challenging drug-related problem situations (see Table 1). These youth elicited 420 individual responses across the 15 situations and rank-ordered them based on their perceived level of social competence. Over half (56%) of the primary drug resistance strategies identified by the youth participants fell into one of three categories: "Refuse," "Explain," or "Angry Refusal" (see Table 5 for a description of these categories). Refuse was ranked first (i.e., the most socially competent) more frequently than other response types, while Angry Refusal was ranked eighth or below more frequently (Okamoto, Helm, Giroux, Kaliades, et al., 2010). The present study builds off of the findings from the Okamoto, Helm, Giroux, Kaliades, et al. study, as it validates the drug-related problem situations and responses developed by the middle or intermediate school youth with a sample of community stakeholders within the same geographic regions.

Community Stakeholder Analysis in Rural Hawai'i

Community stakeholder analysis has been used to examine social issues in rural Hawai'i, such as youth violence (Affonso et al., 2010; Affonso, Shibuya, & Frueh, 2007) and substance abuse (Waitzfelder, Engel, & Gilbert, 1998) and is considered an "essential step" in developing community-based prevention programming (Affonso et al., 2010, p. 147). Specifically, community stakeholder analysis has been used to identify and prioritize policy and intervention needs within rural communities in Hawai'i (Affonso et al., 2010; Affonso et al., 2007; Waitzfelder et al., 1998; Withy, Andaya, Mikami, & Yamada, 2007). Withy et al., for example, conducted a statewide community stakeholder analysis and found drug use to be the second highest reported social issue that impacted rural health in Hawai'i. Waitzfelder et al. interviewed staff from community-based human service organizations across the state of Hawai'i about substance abuse intervention needs and found that these staff identified service delivery problems (e.g., transportation issues, lack of services) in rural areas of Hawai'i as a major barrier to effective treatment. These stakeholders further emphasized the importance of culturally appropriate treatment for substance abuse, particularly for Native Hawaiians.

Unruh (2005) differentiates between primary and secondary stakeholders in intervention research, with primary stakeholders being the "program beneficiaries" and secondary stakeholders as those who provide program services or are involved in the decision-making process for program implementation. In the PSCR study, Years 1–3 established the social context of drug offers and socially competent responses to those offers from primary stakeholders of a future drug prevention program (i.e., middle- or intermediate-school-aged youth). The present study focused on the secondary stakeholders of this proposed intervention. Their evaluation of the drug offers and responses described by the middle school aged youth were essential to understand the feasibility of the youths' responses to community-based drug prevention in Hawai'i as well as to elucidate the ways in which middle school youth and stakeholders converge and diverge in their views on social competence in drug-related problem situations.

Method

Procedure

Five middle or intermediate schools, two high schools, and four community-based organizations (CBOs) within two public school complex areas on the Island of Hawai'i participated in this study (See Table 2). Consistent with rural definitions from the U.S. Census Bureau and the Hawai'i Rural Health Association (U.S. Department of Agriculture, 2007; Withy et al., 2007), the schools and CBOs were also located in areas with populations of less than 50,000. School- and agency-based staff were recruited through a series of presentations by the research team during regular faculty or staff meetings. Presentations for older youth were coordinated in collaboration with a school-based research liaison. These liaisons were school staff members (e.g., school counselors, teachers) who were responsible for promoting and describing the study, distributing and collecting parental permission forms, and identifying space within their respective schools for recruitment presentations and survey administrations. Recruitment presentations consisted of a brief description of the previous phases of the PSCR study and the purpose of the current phase of the study (i.e., to conduct a web-based validation survey), and a description of informed consent procedures.

Participants were allowed to complete the online survey in one of two ways: (a) through a group administration, in which participants completed the survey within a computer laboratory as part of the recruitment presentation with the research team providing on site troubleshooting assistance, or (b) through a self-administration, in which participants

completed the survey on their own time after the recruitment presentation. After the presentation, participants in both conditions who expressed interest in completing the survey were subsequently given a unique passcode that they were required to use to access the web-based survey online. Participants who took the group-administered version of the survey completed hard copy versions of the consent and/or assent forms. Further, all youth participants were required to complete the group-administered version of the survey, as they needed both parental consent and assent to participate in the study. In addition to the standard description of the survey, respondents who completed the self-administered version of the survey were also presented with a brief computer demonstration of the survey during the recruitment presentation. The consent procedures were online for the self-administered version of the survey, which required participants to check a box on the consent form prior to advancing to the survey. All research procedures were approved by the institutional review boards at Hawai'i Pacific University and the University of Hawai'i at Mānoa.

Instrument

The online survey consisted of 15 different drug-related problem scenarios and their matched sets of responses developed by middle school youth in previous phases of the study (Okamoto, Helm, Giroux, Edwards, et al., 2010; Okamoto, Helm, Giroux, Kaliades, et al., 2010; see Table 1). Respondents were directed to select the five best and five worst responses to each scenario and to provide a brief, typewritten justification for their first-ranked selections. Respondents evaluated a total of 413¹ separate responses. The mean number of responses per scenario was 27.5 ($SD = 9.46$), with a range from 13 (Scenario 5) to 44 (Scenario 15; see Table 1).

In order to mitigate respondent fatigue, several features were designed into the online survey. For the selection of the best and worst responses, respondents were presented with a "shopping cart" format, in which they were able to select their response using a computer mouse, which would automatically send their selection to a separate list on the same screen. This format eliminated the need for respondents to retype their selected responses. Additionally, after respondents selected their five best responses to a scenario, their selected responses were subsequently removed from the list of choices used to identify the five worst responses. This reduced fatigue by reducing the number of response options and also prevented error from the selection of the same response as the best and the worst for each scenario. Finally, the order of the survey items was designed such that scenarios with larger numbers of responses (e.g., Scenario 4) were clustered near items with fewer numbers of responses (e.g., Scenario 5).

Participants

Across the eleven sites, a total of 266 passcodes were distributed, with 145 of these codes being used to access the online survey (see Table 2). The overall response rate was 55%, which is slightly lower than rates reported for similar web-based surveys (63%; McCabe, Couper, Cranford, & Boyd, 2006). Seven of the passcodes used to access the survey contained limited data (e.g., only partial demographic data) and were therefore eliminated from the data set. Therefore, data from 138 respondents were included in this study. Sixty-two percent of the sample was female, 20% were ages 16–21, 22% were ages 22–40, and 59% were ages 41–70. The majority of the sample identified as Native Hawaiian (33%), followed by White/Portuguese (28%), Japanese (16%), Filipino (9%), Hispanic/Latino/Spanish (6%), Other Pacific Islander (4%), Korean (2%), Chinese (1%), and Other Asian (1%). The majority of the sample worked within an educational setting (52%), followed by

¹Seven responses were verbatim duplications of another response within the same scenario, so these responses were deleted from the survey.

within a community-based organization (26%), or as a high school student (19%). Seventy-seven percent of the sample had 6 or more years of experience working with youth in a professional setting. Forty percent of the sample had a master's degree as their highest level of education, followed by a bachelor's degree (25%), less than a high school diploma or GED (15%), high school diploma or GED (8%), associate's degree (7%), and doctoral degree (1%).

Analysis

Selected responses for each scenario were ranked from 1 to 5, with 1 as the top response. These rankings were reverse coded so that higher scores reflected preferred drug resistance strategies. All other responses not selected by respondents within each scenario were assigned a value of 0. Mean scores were calculated for each response. All responses were also coded into a resistance strategy category by the lead author (S. Okamoto), and these categorizations were validated by another member of the research team. The most common categories of resistance strategies—“Refuse,” “Explain,” “Refuse/Explain,” “Leave,” “Involve Others,” “Ignore,” “Divert,” “Angry Refusal,” and “Aggressive Refusal”—were scaled together across all best-ranked scenarios (see Table 5 for descriptions and/or examples of each of these categories. For a complete list of resistance strategy categorizations, see Okamoto, Helm, Giroux, Kaliades, et al., 2010). Mean comparisons based on age (16–21 years versus 22–70 years), ethnicity (Native Hawaiian versus all other ethnic groups), and gender (male versus female) were calculated based on these scaled scores.

Results

The 10 best responses (i.e., those with the highest mean scores across all scenarios) are listed in Table 3. Mean scores ranged from 2.27 to 3.02. These responses mainly reflected two categories—Refuse and/or Explain. The 10 worst responses are listed in Table 4. Mean scores ranged from 2.04 to 3.42. These responses mainly reflected two categories—Angry Refuse or Aggressive Refuse.

The scaled best-ranked mean scores for the nine different categories of responses are listed in Table 5, along with the means for adults ($n = 111$) and youth ($n = 27$). Significant differences were found in the endorsement of 6 of the 9 different categories. Adults endorsed the use of Explain, Refuse/Explain, and Involving Others in the selected drug-related problem situations while youth endorsed the use of Ignore, Divert, and Angry Refuse. In terms of gender differences, female stakeholders ($n = 86$) endorsed Involving Others more than male stakeholders ($n = 52$), $t(132) = -2.76, p < .01$, while male stakeholders endorsed Ignore more than female stakeholders, $t(80) = 2.31, p < .05$. In terms of ethnic differences, Hawaiian stakeholders ($n = 45$) endorsed Angry Refusal significantly more than non-Hawaiian stakeholders ($n = 90$), $t(133) = 3.28, p < .01$.

Discussion

Using a web-based survey, this study validated the findings from prior stages of the PSCR study with a sample of secondary stakeholders in rural areas on the Island of Hawai'i. The findings were consistent with those from Hawaiian middle or intermediate school youth in prior stages of the study but also were shown to vary based on age, gender, and ethnic identity. Community stakeholders endorsed Refuse and/or Explain as the best types of resistance strategies and Angry Refuse as one of the worst types of resistance strategies for middle or intermediate school youth to use in drug-related problem situations. Hawaiian youth in the prior year of the PSCR study similarly ranked Refuse and Explain as the top two drug resistance strategies and Angry Refuse as the strategy most frequently ranked the

lowest in drug-related problem situations (Okamoto, Helm, Giroux, Kaliades, et al., 2010). These findings support the need for drug prevention programs to provide skills in overt refusal, used either alone or in conjunction with relevant explanations as to why youth do not want to use drugs. Okamoto, Helm, Giroux, and Kaliades (2011) describe a typology of explanations used by Hawaiian youth, which varies based on the relationship of the youth to the drug offerer in the problem situation. Culturally specific drug prevention for Hawaiian youth may need to focus on training them to differentiate and select types of explanations for drug refusal based on who is offering them substances, and how to use these effectively in real-world situations where drugs and/or alcohol are being offered to them.

There were several differences in the endorsement of different types of drug refusal based on age, gender, and ethnic identity. In terms of age, adult stakeholders favored direct or overt forms of refusal (e.g., saying “no” or involving others), while older youth stakeholders favored indirect or avoidant forms of refusal (e.g., ignoring or diverting the topic away from drugs). Older youth stakeholders also endorsed the use of angry refusal strategies more than their adult counterparts. Okamoto, Helm, Giroux, Kaliades, et al. (2010) describe how youth in their study may have resorted to angry refusal strategies as a “last resort” after other strategies have failed. The findings suggest that youth stakeholders in this study may have utilized indirect or avoidant forms of refusal as one of their only options prior to resorting to angry refusal strategies. Culturally specific drug prevention programs for Hawaiian youth may need to consider a variety of different ways in which to effectively balance both overt/direct and indirect/avoidant forms of drug refusal strategies. For example, a series of steps might be proposed: (a) attempt to ignore the drug offer, or divert the topic away from drugs. If ineffective, then (b) implement a direct form of refusal (saying “no”). If ineffective, then, (c) use a more assertive form of direct refusal (“I said NO.”).

Female stakeholders endorsed Involving Others significantly more than male stakeholders. This is consistent with the relational and cultural aspects of drug resistance for females in rural communities described in prior PSCR research (Okamoto, Kulis, Helm, Giroux, & Edwards, 2010). Previous studies have shown that significant family and peer relationships directly influence females’ abilities and/or willingness to reject drug offers (Belgrave, 2002; Corneille, Ashcroft, & Belgrave, 2005). As such, female stakeholders may support the use of relational networks in drug resistance more than males, as they may be more likely to view these relationships as a form of empowerment in the face of adversity (West, 2005). Finally, Hawaiian stakeholders ranked angry refusal strategies higher than their non-Hawaiian counterparts. These findings may be the result of how anger is perceived within the Hawaiian culture. Po‘a-Kekuawela, Okamoto, Nebre, Helm, and Chin (2009) proposed a framework for how the Hawaiian concept of *pono* (“to live righteously”) might influence drug resistance. *Pono* is a balance of two opposing forces—*Kū* (anger and aggression) and *Lono* (healing, growth, and peace; Cunningham, 1994). N. Andrade (personal communication, November 19, 2010) described how both of these forces are necessary in order to be *pono* with oneself. In this sense, anger does not have the negative connotation that it has in Western culture because it is seen as a necessary part of living “righteously” within the Hawaiian culture.

Limitations of the Study

This study had several limitations which may have affected the findings. First, the online survey was extremely lengthy. While several of the participants were able to complete it within a half an hour, the majority of them took up to an hour to complete it. This may have caused fatigue, affecting the validity of the findings. A few of the participants who took the self-administered version of the survey indicated that they had difficulties exiting and re-entering the survey. This might have resulted in incomplete or lost data for several of these

participants. Finally, the subsample of older youth stakeholders was relatively small, which may have affected the accuracy of the findings.

Conclusions

Despite serious issues related to health disparities and substance abuse, there has been a lack of research on Native Hawaiians and therefore a lack of knowledge on the causes of Hawaiian health disparities and how to address them in interventions (Mokuau, Garlock-Tuiali'i, & Lee, 2008; Edwards et al., 2010). The present study validated pre-prevention research on the substance use of rural Hawaiian youth in order to inform future youth drug prevention efforts. The findings from this study can assist in the decision-making process of drug prevention program development in terms of selecting types of resistance skills to be emphasized that have both stakeholder and youth appeal. Ultimately, these decisions will affect the feasibility of program implementation and the overall sustainability of drug prevention efforts within rural Hawaiian communities.

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Table 1**Drug-Related Problem Scenarios**

Item	Scenario	Number of Responses
1	You see some of your friends at the fair, so you go cruise with them for the night. Your friend has weed with her and wants to smoke. She offers you some.	22
2	A big, bulky boy in school is known to be the leader of a group of "tough kids," who fight and do drugs. He approaches you one day at recess and asks you if you'd like to hang out with his group.	17
3	Your best friend offers you marijuana. You don't know what might happen to your friendship if you said "no".	15
4	You're at a New Year's Eve Party with your 'ohana, and your auntie's boyfriend offers you some of his beer.	41
5	You're at a party with your 'ohana (family), and one of your older cousins offers you to take a sip of beer. You tell him you gotta go, but he keeps following you and asking you to drink some.	13
6	Your friends bring Bacardi to school and mix it with juice. They are drinking it on campus during recess. They offer you some.	24
7	One of your classmates always hangs around with this group of older kids and they smoke weed every day. One day, your classmate asks you if you'd like to eat lunch with them.	35
8	You are at school, and some of your friends want to skip class so that they can smoke pakalolo (marijuana). They ask you to join them.	24
9	You are with a girl/boy you like and some other friends. They are all hiding in the bushes and smoking weed. They ask you if you want to try some. After you say no, they say, "Just try this once, it's cool."	24
10	Your older cousin is walking with you to the mall. He takes out some marijuana and says "don't tell my parents. You like some?"	21
11	You are at home having dinner with your family. Your parents are drinking beer with dinner, and your mom offers you some.	36
12	On the nights that there is a full moon lots of the older kids like to go out at night because they can kanikapila (play music) and smoke marijuana and drink beer outside. Your older cousin invites you to come along.	30
13	Your dad, uncles, papa, and dad's friends are making pulehu (barbecue) in the yard, and you are with them. Your mom is inside the house. They are drinking a lot of beer, probably already drunk. Your dad offers you a beer.	32
14	You are at a family party where the adults have coolers full of beer. They are getting drunk, so you and your cousins can take a beer without the adults noticing. One of your cousins says to you, "Let's grab one."	35
15	Your older brother enters your bedroom, closes the door, and asks you if you'd like to smoke some weed.	44

Table 2

Response Rate of Web-Based Survey

Organization	Type	Passcodes distributed		Surveys completed			Response rate (%)
		Total	Adult respondents	Youth respondents			
A	CBO	16	5	5	0	31	
B	MIS	48	24	24	0	50	
C	CBO	20	11	11	0	55	
D	HS	19	19	4	15	100	
E	CBO	12	9	9	0	75	
F	HS	12	12	0	12	100	
G	MIS	71	33	33	0	46	
H	CBO	10	10	10	0	100	
I	MIS	31	7	7	0	23	
J	MIS	17	10	10	0	59	
K	MIS	10	5	5	0	50	
Total		266	145	118	27		
Overall response rate (%)		55					

Note. CBO = community-based organization; MIS = middle or intermediate school; HS = high school.

Table 3**Top 10 Best-Ranked Responses**

Scenario number	Response	M	SD	PDRS	SDRS
2	No thank you. I have my own friends!	3.02	1.91	Refuse	Explain
3	I don't smoke	2.79	2.07	Explain	N/A
5	I would say, "I don't want any beer."	2.79	1.96	Refuse	N/A
3	Say no	2.77	1.83	Refuse	N/A
1	Nah, I pass	2.70	2.08	Refuse	N/A
10	Say "NO"	2.63	2.14	Refuse	N/A
8	Say "NO" and walk away	2.53	2.34	Refuse	Leave
2	Um, I'm ok. I like my friends that are right here.	2.45	1.98	Refuse	Explain
5	Say, "No thank you, I really have to go."	2.43	2.11	Refuse	Explain
7	No thank you. My friends are waiting for me.	2.27	2.22	Refuse	Explain

Note. PDRS = primary drug resistance strategy; SDRS = secondary drug resistance strategy

Table 4

Top 10 Worst-Ranked Responses

Scenario number	Response	M	SD	PDRS	SDRS
2	[Expletives]. Do u think I am [expletive] stupid? So shut the [expletive] up, you dumb stupid dummy.	3.42	1.90	Angry Refuse	N/A
7	[Expletive]. You stupid dummy. I don't want to [expletive] die. Go smoke a joint somewhere else dumb [expletive]!	2.97	2.12	Angry Refuse	N/A
6	Punch them in the choppers!	2.64	2.01	Aggressive Refuse	N/A
6	Push them down the stairs.	2.62	2.02	Aggressive Refuse	N/A
5	Slap the beer out of his hands.	2.59	2.14	Angry Refuse	N/A
2	Stupid [expletive], get away from me dummy! [Expletive]. Please don't kill me, I don't want to die 'cause you're too tough for me.	2.57	1.60	Angry Refuse	N/A
7	[Expletive] that. Go kill yourself.	2.56	1.86	Angry Refuse	N/A
3	Yell at her	2.53	2.00	Angry Refuse	N/A
2	Shut up, you want to go (go = fight, beat up da person). You think you all tuff you tuff guy.	2.14	1.71	Aggressive Refuse	N/A
15	Take it and sell it	2.04	2.04	Take	N/A

Note. PDRS = primary drug resistance strategy; SDRS = secondary drug resistance strategy.

Table 5

Descriptions and Best-Ranked Mean Scores of Drug Refusal Categories

Category	Description and/or example(s)	Overall (N = 138)		Adult (n = 111)		Youth (n = 27)	
		M	SD	M	SD	M	SD
Refuse	Saying "no" to a drug offer	1.56	0.69	1.59	0.72	1.43	0.57
Explain	Providing an explanation for drug refusal	0.59	0.27	0.61	0.28	0.51*	0.18
Refuse/Explain	"Refuse" used as a primary resistance strategy and "explain" used as a secondary resistance strategy	0.81	0.38	0.84	0.39	0.68*	0.29
Leave	Walking away from the drug offer situation	0.59	0.40	0.59	0.40	0.57	0.43
Involve Others	Incorporating another person as part of drug refusal (e.g., "I would tell my mom that he offered me drugs.")	0.46	0.56	0.53	0.59	0.17**	0.28
Ignore	Ignoring the offer of drugs in the situation	0.25	0.42	0.20	0.39	0.48**	0.44
Divert	Changing the topic of discussion away from drugs (e.g., "Let's go play with my X Box 360.")	0.32	0.53	0.25	0.49	0.57*	0.60
Angry Refusal	Refusal with an angry tone, often laced with profanity (e.g., "Get the hell away from me!")	0.32	0.23	0.28	0.20	0.47**	0.24
Aggressive Refusal	Refusal that incorporates the threat or act of physical violence (e.g., "Get the hell away from me, or I'll punch you in the face.")	0.29	0.50	0.29	0.54	0.31	0.31

*
 $p < .05$,**
 $p < .01$