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ABSTRACT

A study investigated the proposition that the ability of family communication patterns (FCP) and related measures to predict reactions to anti-drug messages is in part contingent on adolescent rebelliousness. Fifty-one adolescents (ages 15-18) in high school health classes saw six anti-drug PSAs, and indicated the extent to which they considered the messages believable and likely to persuade them and people they knew. Respondents were blocked with respect to revised FCP, rebelliousness, and substance abuse. As predicted, rebellious adolescents from conformity-oriented families considered the messages relatively less believable, and the non-rebellious adolescents from conformity-oriented families considered the messages relatively more believable. No effects on perceived message persuasiveness were found, nor were predicted relationships between conversation-orientation and extent of drug use and assessments of believability and persuasiveness statistically significant. (One table of data is included. Contains 27 references. (Author/RS))

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Family Communication Patterns, Rebelliousness, and Adolescent
Reactions to Anti-Drug PSAs

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Family Communication Patterns, Rebelliousness, and Adolescent
Reactions to Anti-Drug PSAs

Abstract

Research suggests that adolescents' Family Communication Patterns (FCP) should predict their reactions to anti-drug messages. The authors propose that the ability of FCP and related measures to predict such responses is in part contingent on adolescent rebelliousness. Fifty-one adolescents (ages 15-18) saw six anti-drug PSAs, and indicated the extent to which they considered the messages believable and likely to persuade them and people they knew. Respondents were blocked with respect to revised FCP, rebelliousness, and substance abuse. As predicted, rebellious adolescents from conformity-oriented families considered the messages relatively less believable, and the non-rebellious adolescents from conformity-oriented families considered the messages relatively more believable. No effects on perceived message persuasiveness were found, nor were predicted relationships between conversation-orientation and extent of drug use and assessments of believability and persuasiveness statistically significant.

Family Communication Patterns, Rebelliousness, and Adolescent
Reactions to Anti-Drug PSAs

Introduction

When attempting to counter drug abuse and other dysfunctional behaviors among adolescents with a media campaign, it is essential to understand how various adolescents differentially respond to such messages (e.g., Flay & Burton, 1990). The manner in which people relate within a given family is one of the main parent-child influences that operate on adolescent socialization (Malmquist, 1978). Campaign messages, like parental communication, originate from an external authority and are clearly intended to influence an adolescent's social behavior. Adolescent reactions to such messages may mirror their reactions to communications from their parents. Therefore, one way to better understand the adolescent audience is to know how parent-child relationships affect the way young people assess persuasive anti-drug messages.

The Family Communications Pattern (FCP) instrument, which was developed by Chaffee and McLeod in the late 60's, is a validated instrument for measuring family communication norms (Chaffee, McLeod & Wackman, 1973). FCP has been predictive of a variety of outcomes and behaviors (Ritchie & Fitzpatrick, 1990) including children's media usage, interest in public affairs, family consumer behavior, consumer socialization, brand preferences, retail store patronage, adolescent career decisions, perceptions of interpersonal relationships and discussing anti-drug films (Lull, 1980; Meadowcraft & Fitzpatrick, 1988; Moore & Moschis, 1981; Morgan, Alexander, Shanahan, & Harris, 1990;

Ritchie & Fitzpatrick, 1990; Tims, 1986; Trager, 1976).

In the parent-adolescent communication literature, adolescent communication has been shown to be a factor in conflict, response to societal messages and in functioning (Montemayor, 1986; Nolin & Petersen, 1992; Masselam, 1990). In relation to drug use, Kafka and London (1991) found that the degree to which adolescents talk openly with their parents may influence the extent of their substance use and that the presence of at least one open parental figure was associated with lower levels of all substance use. In a study of adolescents by Baumrind (1991), 27% of the variance in substance use could be explained by parent types.

Therefore, the relationship of FCP to how young people respond to anti-drug messages merits close examination.

Independent Variables

Family Communication

In developing a model of family communication structure, Chaffee, McLeod, and Wackman (1973) postulated that "parents may emphasize either (or neither, or both) of two kinds of structural relations in raising their children. The children, in turn, learn to deal with the world in terms of these structural constraints, so that the family communication pattern is generalized to the child's communicatory and coping behavior in other situations."

The first kind of structural relation is called socio-orientation, which stresses maintaining harmonious personal relationships with parents and others. The child may be advised to give in on arguments, avoid controversy, repress anger, and keep away from trouble. The second kind of structural relation is referred to as concept-orientation. In this environment the child is stimulated to express ideas and to challenge others'

beliefs, often being exposed to both sides of an issue and taking part in controversial discussions with adults.

Recently, Ritchie (1990, 1991) responded to McLeod and Chaffee's (cited in Ritchie, 1991) call for "development of alternative measures and elaborated theory" and reformulated FCP. The revised FCP (RFCP) measures individual family members' perceptions of family norms rather than the norms themselves and "ties the FCP model more tightly into a tradition of research within family social science." (Ritchie, 1991). The instrument is a reliable measure, even for children as young as ten (Ritchie, 1990).

Although FCP and RFCP are usually determined by questioning a parent and child about their interpretation of how their family communicates, the adolescent's perception of the family's communication should be sufficient for relating to how they respond to anti-drug messages. Since parents and children don't necessarily agree on what the communication norms are within the family anyway, (Ritchie & Fitzpatrick, 1990; Tims & Marsland, 1985) the parental interpretation of communication in the family does not necessarily relate to the question of how adolescents respond to anti-drug messages.

In RFCP, Ritchie and Fitzpatrick (1990) distinguish between conversation-orientation and conformity-orientation instead of socio-orientation and concept-orientation. Ritchie (1990, 1991) states that concept-orientation is associated with supportiveness and open communication, and is a better predictor of harmony and lack of tension than is socio-orientation. Although socio-orientation implies social harmony, it is associated with the parental assertion of power and control (Ritchie 1990) and has been shown to be associated with aggressive behavior outside the

family (McLeod, Atkin & Chaffee, 1972). The objectives of harmonious social relationships are positively associated with concept-orientation, and not with socio-orientation (Ritchie, 1990).

Two studies which focused on FCP appear to be especially relevant to this research. Trager (1976) asked whether showing a drug education film to adolescents (tenth graders) would foster discussion with family about the film and/or about drugs. Adolescents from socio-oriented families were less likely to discuss the films with their families than were adolescents from concept-oriented families.

Lull (1980) examined whether family members who hold differing perceptions of the nature of the communication environment at home also differ in the ways in which they use television socially. Three conceptual areas were probed. They were FCP, the social uses of television and the estimated amount of television viewing. There were statistically significant differences for nearly all of the items regarding social use between socio- and concept-oriented subjects. Socio-oriented individuals watch more television and use it for a number of social purposes for which members of concept-oriented families do not. In particular, Lull found that members of socio-oriented families use the medium for social learning, which includes consumer decision-making, problem solving, value transmission from parent to child (negative correlation) and behavior modeling. At first glance, a negative correlation for value transmission from parent to child may be opposite of what is expected. However, it may be in keeping with socio-oriented fathers' and mothers' heavy use of television and their reluctance to restrict use of the medium. Concept-oriented families watch less television and are

more purposeful about what they do watch.

It follows that adolescents from socio-oriented families may have been socialized to use television for a variety of social information, including decision-making and behavior modeling about drug use.

Concept-oriented members claim more independence from television. Therefore, it may be expected that adolescents from concept-oriented families would tend to be more critical of television content and less likely to be persuaded by anti-drug messages.

Adolescence and rebelliousness

In the adolescent development literature there are several theories about identity formation during adolescence (e.g. Baumrind, 1991; Cooper, Grotevant, & Condon, 1982, 1983). Most such theories acknowledge the tension between establishing one's own individuality, while maintaining connection with parents, family, and parental values and expectations. For some adolescents, the individuation process involves rebellion (Jersild, Brook & Brook 1978), including the rejection of parental authority.

It would seem likely that the extent and impact of adolescent rebelliousness should depend upon family communication patterns. If adolescents rebel against parental authority, such rebellion should be much more salient when parents are, in fact, authoritarian. In a conformity-oriented family, adolescents must either conform (or seem to conform) or outwardly rebel. We can therefore expect two general types of adolescents from conformity-oriented families: the conforming, and the rebellious. We might also expect adolescents of both types to have distinctively negative patterns of response to communication from parental

authorities, and to communication from quasi-authorities such as educators and public communicators, regarding social behavior such as drug use.

In contrast, divergent opinions and perspectives are tolerated and even encouraged in conversation-oriented families. While the extent of rebelliousness might vary in adolescents from such families, they do not seem as likely to be forced into compliance or open rebellion.

Drug Use

It is also likely that adolescents who are substance-users would respond differently to anti-drug messages than those who did not. For example, in a study about response to alcohol warnings, individuals who consumed and used alcohol trusted their own experience to a greater extent than they trusted external sources of information (Andrews, Netemeyer & Durvasula, 1991). Frequent alcohol users found the alcohol warning labels to be significantly less believable and less favorable than occasional users or non-users of alcohol. Substance use was assessed in order to determine the differences in how substance-users and non-users responded to anti-drug messages.

Dependent Variables

We are concerned here with how adolescents respond to anti-drug messages depending on their family's communication patterns and their own rebelliousness. We will examine here two dimensions of message response: believability and perceived persuasiveness.

Believability

Believability refers to the degree to which a message is accepted as plausible and worthy of attention. Although the conceptualization and measurement of believability has not been addressed extensively (Beltramini, 1988), the Beltramini scale has

effectively measured the believability of alcohol and tobacco warnings (Beltramini, 1988; Andrews et. al., 1991).

Believability, as a concept, does capture the subjective responses to a message that we believe will be influenced by family communication patterns and rebelliousness.

Perceived persuasiveness

Perceived persuasiveness is defined as the degree to which a message is likely to change behavior in oneself or others. In this study, the PFDA messages were intended to persuade adolescents that using drugs is risky and to alert them to those risks. The respondents were asked how much effect, if any, they expected the messages to have on their and their friends' decisions to use drugs. While the conceptual relationship between FCP, rebelliousness, and perceived persuasiveness is not as clear as in the case of believability, perceived persuasiveness is substantively too important to ignore. Certainly, believability should be a necessary, if not a sufficient, condition for perceived persuasiveness.

Hypotheses

As discussed earlier, adolescentss establish independence from their parents (Jersild et al, 1978). Adolescents from conformity-oriented families are no different, except, unlike adolescents from conversation-oriented families, they are not allowed the freedom to communicate views that differ from those of their parents (Chaffee 1973; Ritchie, 1990). A portion of those adolescents were expected to be rebellious and choose not to conform to their family's communication norm. We expect these adolescents to assess persuasive messages--much as they presumably do their parents' messages--to be less believable and less persuasive than non-rebellious adolescents from other conformity-

oriented families .

Hypothesis 1a:

Rebellious adolescents from conformity-oriented families will assess anti-drug messages to be less believable than will non-rebellious adolescents from conformity-oriented families.

Hypothesis 1b:

These same rebellious adolescents will assess anti-drug messages to be less persuasive than will non-rebellious adolescents from conformity-oriented families.

Adolescents from conversation-oriented families are encouraged to look at both sides of an issue and to challenge their parents' ideas and beliefs (Ritchie, 1990). If they challenge their parents' ideas, they will may well question others' ideas, including messages they are exposed to outside of their family.

Moreover, concept- or conversation-oriented families claim more independence from television than conformity-oriented families (Lull, 1980). We expect their guarded attitude toward television, and more critical approach to ideas and values, to carry over to how they respond to the anti-drug messages.

Hypothesis 2a:

The more conversation-oriented adolescents are, the less believable they will assess anti-drug messages to be.

Hypothesis 2b:

The more conversation-oriented adolescents are, the less persuasive they will assess anti-drug messages to be.

Individuals trust their own consumption experience to a greater extent than they trust external sources of information (Marks & Kamins, 1988; Smith & Swinyard, 1983). Therefore, it was

expected that adolescents who are substance-users would assess anti-drug messages more critically than those who do not.

Hypothesis 3a:

Extent of drug-abuse will be negatively related to assessment of message believability.

Hypothesis 3b:

Extent of drug-abuse will be negatively related to assessment of message persuasiveness.

METHODS

Design

Data collection took place in three high school health classes and one physical education class in a small town in the Western U.S., using a 2x2x2 experimental design. Conformity-orientation, conversation-orientation, and rebelliousness were the three blocking factors used. The students (N=51) were asked to fill out a survey which questioned them about family communication, drug use, rebelliousness, age and gender. Then, they were asked to respond to six, thirty-second, anti-drug public service announcement videos produced by the Partnership for a Drug Free America, one at a time. The participants were 14 to 18 years old and had received parental consent prior to the time of data collection. The sequence in which the messages were shown were counterbalanced to eliminate any order effect.

The questions used to determine drug use were derived from the Rocky Mountain Behavioral Science Institute (RMBSI) drug survey and have a reliability of .89. The survey instrument has been used to survey over 400,000 adolescents (RMBSI, Inc., 1990).

Stimuli

Roger Pisani (personal communication, February 28, 1992), the director of the Partnership For A Drug Free America, selected

the messages that provided the stimulus. These messages were selected because they were the most representative of the sample population's lifestyle and peer group. The sample population is primarily white, middle class, small-town, somewhat protected, and not necessarily representative of the typical American teenager.

Family Communication

Ritchie's RFCP instrument was used to measure family communication patterns. The instrument has proven reliability and validity. The reliabilities of RFCP are substantially better than those of the original FCP, although both are reliable measures of perceived family communication norms. Ritchie and Fitzpatrick (1990) found a reliability test-retest coefficient of close to 1.0 for conformity-orientation and .73 and .93 for conversation-orientation. It was reliable across various age groups, beginning with age eleven.

In this study, the conformity index, after deleting survey item seven, 'My parents often say things like 'You should give in on arguments rather than risk making people mad,'" had a Chronbach coefficient alpha of .83 (N=51). The mean score for the index varied from 1.9 to 7.8 on a scale from 1 to 8. For the purpose of further analysis, scores below or equal to 5.3 were identified as "low conformity". Scores above 5.3 were identified as "high conformity". The split was designated at 49% of cumulative frequency.

After deleting survey item thirteen, "We often talk as a family about things we have done during the day", the conversation index had a Chronbach coefficient alpha of .92 (N=51). The mean score for the index varied from 1.3 to 7.4 on a scale from 1 to 8. For the purpose of analysis, scores below or equal to 3.7 were

categorized as low-conversation. Scores above 4.0 were categorized as high-conversation. The split was designated at 49% cumulative frequency.

Rebelliousness

Whether or not an adolescent was categorized as a high-rebel or a low-rebel was determined by the item, "If I can get away with it, I sometimes enjoy doing things my parents wouldn't want me to do just because it's forbidden by them." The distribution was as follows (1=strongly disagree, 5=strongly agree): 1 - 19.6%, 2 - 23.5%, 3 - 25.5%, 4 - 19.6%, 5 - 11.8%. Those who responded with a 1 or 2 were designated as low rebel. Those who responded with a 3 or above were designated as high rebel.

Substance use

Ninety-two percent of those surveyed had alcohol to drink and fifty-nine percent has gotten drunk. Only 17.6% had tried marijuana and only a nominal percentage had used other drugs except for sniffing glue and inhalants, tried by 25% of respondents. Use of various drugs were not consistently correlated. In particular, alcohol use had little correlation with abuse of other substances. Therefore, a summative scale of frequency of use of illegal drugs was created to measure extent of use of illegal drugs, excluding alcohol use.

Dependent variables

The level of believability was determined using Beltramini's advertising believability scale (Beltramini, 1988). The index for believability, using Beltramini's believability scale, had a Chronbach coefficient alpha of .98. The index was created by determining the mean of each variable across the six messages, and then averaging the component variables in the index.

Perceived persuasiveness was measured using the following

items (the response scale was a Likert scale, 1=strongly agree, 7=strongly disagree): "Assuming you were offered an illegal drug such as marijuana at a party or other social situation, how effective do you think this message would be in helping persuade you to turn down the offer?" and, "Assuming your friends were offered an illegal drug such as marijuana at a party, how effective do you think the message you just saw would be in helping persuade them to turn down the offer?" The means for perceived persuasiveness were between 1.9 and 6.5 on a scale of 1 to 7; the Cronbach coefficient alpha was .89.

Data analysis

We used analyses of variance to test the interaction of rebelliousness and conformity-orientation (Hypotheses 1a and 1b) and the main effect for conversation-orientation (Hypotheses 2a and 2b). We used bivariate regressions to test for the relation between substance abuse and message assessment (Hypotheses 3a and 3b).

RESULTS

Hypotheses 1a, 1b, 2a, and 2b were tested using an analysis of variance model including conformity-orientation, conversation-orientation, and rebelliousness as main effects as well as the various resulting two- and three-way interaction effects.

Hypothesis 1a, predicting that rebellious adolescents from conformity-oriented families will assess anti-drug messages to be less believable than will non-rebellious adolescents from conformity-oriented families was supported (see Table 1). The interaction for rebelliousness with conformity-orientation was significant, $F(1,43)=6.09$, $p=.02$. Adolescents who rated low in rebellion and high in conformity assessed the messages to be the most believable (mean = 5.5), followed by those who are high in

rebellion and low in conformity (mean = 5.2), low in rebellion and low in conformity (mean = 4.7) and high in rebellion and high in conformity (mean = 4.7). No other main effects or interactions were significant.

Hypotheses 1b, predicting that rebellious adolescents from conformity-oriented families will assess anti-drug messages to be less persuasive than will non-rebellious adolescents from conformity-oriented families was not supported. The interaction for rebelliousness by conformity-orientation was $F(1,43)=.02$, n.s., as were all other main effects and interactions in the model.

Hypothesis 2a, which proposed that the more conversation-oriented adolescents are, the less believable they will assess anti-drug messages to be was not supported, $F(1,47)=.00$, n.s. All other effects were also insignificant.

Hypothesis 2b, predicting that the more conversation-oriented adolescents are, the less persuasive they will assess anti-drug messages to be was not supported, $F(1,47)=.80$, n.s. All other effects were also insignificant.

The bivariate regressions testing the relationship between extent of drug use and assessment of message believability and persuasiveness (Hypotheses 3a and 3b) did not approach statistical significance.

DISCUSSION

The most interesting result of this study is that, as predicted, rebellious adolescents from conformity-oriented families assessed anti-drug messages to be less believable than did non-rebellious adolescents from conformity-oriented families. This has an important theoretical implication. Rebelliousness, when used in conjunction with RFCP, appears to strengthen RFCP as

a tool for understanding and predicting adolescent communication behaviors. Specifically, the conformity-orientation dimension of RFCP may prove misleading if the response of the adolescent to the authoritarian family communication environment is not taken into account.

From a practical point of view, this finding is of particular interest to communicators attempting to influence the social behavior of adolescents through media messages--be that behavior smoking, sex practices, alcohol use, or drug use. Creating messages more readily accepted by adolescents reacting against rigid parental norms is an interesting communication challenge.

There was no support for the hypothesis that conversation-oriented adolescents would respond, in general, less positively to the messages than less conversation-oriented participants. We had proposed that conversation-oriented adolescents would be relatively critical of televised messages such as the anti-drug PSAs given their lesser dependence on television and the encouragement of critical discussion in their families. Perhaps the anti-drug PSAs were in fact congruent with their pre-existing beliefs; if so, they might not have elicited critical responses even among adolescents more predisposed to be critical.

The lack of a significant relation between drug use and reactions to the PSAs is surprising, but may be attributed to the relative lack of variance in drug use in the subjects studied (see below).

Study limitations. This study has a number of limitations that should be kept in mind when interpreting results. Few or no problems arose during administration of the stimuli: viewers experienced no distractions while the ads played, and they

responded vocally and emotionally to them. The teacher assisting in the research, who knew the students well, commented that the students were "really into the messages."

However, there were some problems with the research population. An active consent procedure (in which only students returning consent forms signed by their parents could participate) was mandated. As a result, the teacher commented privately that several students who were in the class, but were not participating because they had not returned consent forms, would be valuable to have as subjects. Those she pointed about appeared, based on dress and demeanor, to be rebellious adolescents, and may have been more likely to be drug users than the participating subjects.

Based on an earlier drug use survey, results of this research, and conversations with administration, the town in which this research occurred appears to have less of an incidence of drug use than the national average. Combined with the consent procedure, which probably limited access to student drug users, this study focussed primarily on a non drug-using population.

This population bias, however, is a conservative one with respect to the hypotheses. It is all the more striking that rebelliousness did exhibit the predicted interaction with conformity-orientation given the likelihood that number of "acting out" students in the community appeared to be relatively small, and that some of the most rebellious students in that population did not participate.

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Table 1

Means of rebelliousness and conformity-orientation on how believable a message is assessed to be

BELIEVABLE

Level of rebel	Level of conformity	Mean
low	low	4.7
low	high	5.5
high	low	5.2
high	high	4.7