Coherency Among Substance Abuse Models

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Social policy decisions are often made based upon socially constructed models of human behavior. As such, understanding the social constructions in a given policy area is of utmost importance. This study examines three competing models within the substance abuse area: the moral model, the disease model, and the biopsychosocial model. Utilizing survey data from a random sample telephone survey of 1,019 residents of Delaware County, Pennsylvania, the study examines a) the degree to which individual models are internally consistent between beliefs about causes and beliefs about solutions, b) whether the assumptions in competing models are in fact different; and c) the level of support for each of the models. Overall, the findings support coherency among the models, and differences between the paradigms. The level of support for each model is similar.

Social policy decisions, such as those related to substance abuse, are typically made in the context of incomplete empirical information. Complicating the policy process even more is the fact that the problems we address are socially and collectively defined, evolving out of subjective perceptions and a larger process of recognition and legitimization (Blumer, 1971). We, as humans, have a tendency to seek simple, reductionistic answers to problems, even as the evidence indicates high levels of complexity, and these social constructions provide order in the face of this complexity.

Under such conditions, policy choices are often based upon political expediency and competing problem ideologies, or models about the given problem. As such, understanding the ideological models in a policy area is of the utmost importance. These ideological models provide important guidance for the individual and the society in the face of uncertainty, and guide much of policy.

Unfortunately, while the importance of ideological models as policy precursors is fairly widely acknowledged, the empirical study of the models themselves has been limited. A number of assumptions have been made about ideological models which are taken as given, but there is a lack of evidence supporting these assumptions. For example, it is widely believed that within a given model are a number of internally consistent, self validating assumptions about a variety of critical factors affecting the ultimate resolution of the policy problem. These consistent assumptions include certain beliefs about problem causality, human behavior, and problem resolution. These assumptions tend to develop into internally consistent models of the problem area, and again, provide guidance in uncertainty.

Rarely does a single ideological model exist for a given policy problem. Instead, there are often multiple, and competing ideological models. The area of substance abuse prevention provides an important case in point. Potential solutions to the problems of substance abuse are as varied as the problems associated with abuse. Political debates variously focus on such possible avenues as interdiction, treatment (by a multitude of methods), prevention (by a multitude of methods), and criminal sanctions. Each approach has vocal supporters and opponents, and as such the debate continues.

This study will examine the competing ideological models within the substance abuse area. Utilizing survey data from a random sample telephone survey of n=1,019 residents of Delaware county, Pennsylvania, this paper examines two of the assumptions scholars make about these ideological constructs. Specifically, it will examine a) the degree to which individual ideological models are internally consistent between beliefs about causes and beliefs about solutions, and b) whether the assumptions in competing ideological models are in fact different. To do this, hypotheses will be tested about the relationship between causal assumptions and beliefs about problem solutions in three substance abuse models: the moral ideological model, the disease ideological model, and the biopsychosocial ideological model. The paper also examines how widespread the support for these models are.

The importance in determining the consistency and difference among the ideological models is twofold. First, it adds to our empirical understanding about the nature of ideology by attempting to determine if ideologies are in fact coherent belief systems. Secondly, it will assist in understanding why policy choices about substance abuse tend to vacillate and/or reflect multiple problem approaches. The existence of competing ideological models among the general public may explain why substance abuse policy approaches are not consistent over time.

Literature Review

Blumer (1971), Lipsky and Smith (1989), Reinarman (1988) and many others have argued that social problems are not the product of a simple objective classification of an existing phenomena, but in fact are the product of competing ideological and stakeholder claims resulting in a common social definition. In essence, problems do not naturally arise with clear boundaries or dimensions, but instead they arise through a process of negotiation, power relationships, argument and finally social definition and recognition.

An important aspect of this process is that the emerging definitions of the problem contains a number of assumptions about a variety of critical factors affecting the ultimate resolution of that problem, including problem causality itself. In the absence of adequate objective evidence, or perhaps despite such evidence, the ideological positions of the stakeholders or the dominant social climate predominate in shaping the definition. As Reinarman (1988) has demonstrated, the meteoric emergence of the "drunk driver" as a social problem in the 1980's was linked to an affinity between the claims and definitions of Mothers Against Drunk Drivers (MADD) and the dominate social beliefs of the decade.

The policy implications of such a perspective are clear, although not always simple; in the seeds of a problem are found its solution. From the causal assumptions inherent in the definition flow internally coherent assumptions about problem resolution. If poverty, for example, is a problem of intemperance and morality as the Charity Organization Society volunteers of the 1880's believed, then the solution lies in realigning the moral beliefs

and behaviors of the poor (Ehrenreich, 1985). If the problem of alcohol lies in the behavior of those who use it (such as the drunk driver), the solution may be found in legalistic actions against the drunk driver.

It is entirely probable that humans cannot view an existing phenomena from outside a comprehensive ideological framework. It is also probable that humans will tenaciously hold onto a given framework despite its limitations and inaccuracies. Maintaining such a comprehensive set of beliefs gives personal control over an otherwise uncontrollable situation (Traun, 1993). Moreover, people tenaciously hold on to these beliefs, even in light of evidence that the structures are inadequate or incorrect (Traun, 1993).

Where understanding the issue of problem definition becomes most acute, however, is when there are competing definitions, explanations or ideological models, from which no one definition has emerged as predominate, and no one model has "proved empirically better than the rest in treating substance addiction" (Marlatt, quoted in DeAngelis, 1991, p.10). While the focus of this paper will be on substance abuse, the issue of health provides a good illustration of the general case. Tesh (1988), for example, argues that attitudes about disease prevention in general are rooted in beliefs about humanity, society, and epistemology. From her perspective, there are three competing views of disease causation: germ theory rooted in science; life-style theories which blame the individual; and biopsychosocial theories. Which each frame, there is a different focus on the responsibility for prevention. Placing the blame on the individual, for example, takes responsibility off of the society as a whole.

Substance Abuse Ideological models

A similar set of competing models exists for the problem of substance abuse. Several authors have provided summaries of models which have been utilized for understanding the problem. Traun (1993), in an important work discussing the constructs and their impacts in the area of substance abuse and reporting on an address given by Marlatt (1991) summarized four competing models as:

1. The *moral model*, where addiction is the responsibility of the individual, both in terms of cause and resolution. Here, the moral/personal character of the individual, and their will (or lack of will) become the most important variables.
2. The *disease model* (Jellineck, 1960; Drew, 1986; Finagrette, 1989), which variously argues that there is some genetic or otherwise biological component to the problem . . . leads to medical/professional resolutions.
3. The *spiritual or enlightenment model*, "which holds that people are powerless over their condition and must rely on a higher power for healing" (Traun, 1993, p.490). This provides the justification for 12 step programs.
4. The *biopsychosocial model*, which basically assumes that the people are not alone in blame for the problem, but have a bad habit which must be broken systematically" (DeAngelis, 1991, reported in Traun, 1993). Such habits may also be reinforced by the social context in which a person lives.

These various models affect policy choices in profound ways. Where the responsibility for the social problem is placed lies the seeds of the policy solution. But as multiple potential causes exist, multiple competing solutions may also exist. Treatment, interdiction, just saying no, and environmental change are just a few of the potential policy solutions which might arise from such different belief systems about substance abuse, and such different perspectives have all been reflected in social policy over the years.

For the purposes of better understanding the policy debates surrounding the substance abuse problem, and why policies tend to vacillate as they do, this paper tests the relationships between causal assumptions and beliefs about problem solutions in three substance abuse ideological models: the moral ideological model, the disease ideological model, and the biopsychosocial ideological model. The spiritual model cannot be examined because these data have limitations. The following hypotheses are tested:

1: Moral causative factors are positively associated with self-help solutions.
2: Moral causative factors are not associated with treatment solutions.

3: Disease causative factors are not associated with self-help solutions.

4: Disease causative factors are positively associated with treatment solutions.

5: Biopsychosocial causative factors are not associated with self-help solutions.

6: Biopsychosocial causative factors are positively associated with treatment solutions.

In addition, public support for the moral, disease, and biopsychosocial models will be examined.

Methods

Population

A stratified random sample of 1,019 citizens of Delaware County, Pennsylvania was selected through random digit dialing techniques. The telephone interviews were conducted between November 26, 1991 and December 12, 1991 for a county-wide alcohol and other drugs needs assessment. All calls were made during evening hours on Monday through Friday and throughout the weekend (day and evening hours). The interviews took an average of 15 minutes to complete.

The sample was stratified by gender and geographic area. The County was divided into four geographic areas based on the County's mental health catchment areas. Approximately, equal numbers of respondents were interviewed (between 251 and 261) for each geographic area. Additionally, males were over sampled so that approximately equal proportions of males and females were interviewed. The sample is representative of the Delaware County adult population with a sampling error of plus or minus 3%.

Demographic Characteristics of Sample

The sample represents a diverse cross section of Delaware County. About one third of the respondents have graduated from college and about 45% have a high school education or less. The majority of the respondents are married (57.3%) and slightly less than one in four have never been married (23.0%). About 51% of

the respondents are male and almost 41% have children living at home. About one in four have family incomes of $25,000 or less and another 37.1% have incomes between $25,000 and $50,000. Almost 16% have yearly incomes in excess of $75,000. The majority (53.4%) of the respondents are between the ages of 30 and 54, while another 24.8% are between 55 and 74 years of age. Only about 5% are over 75 years old.

Instrument

The questionnaire consisted of 26 closed ended questions about substance use and abuse within the residents' communities. Specifically, respondents rated on four point scales: their perceptions of the seriousness of community problems; the seriousness of substance usage in the community among six age and ethnic groups; factors that contribute to AOD problems, and their perceptions of the effectiveness of prevention and treatment efforts.

Measurement

Eleven variables from the survey are utilized in this article. Six of the items measure the respondents' perceptions of factors that contribute to AOD abuse and five items measure the respondents' perceptions of the effectiveness of various solutions or approaches to dealing with AOD problems.

Causative Factors. The six causative factors are grouped into three categories—individual, biological and environmental. For each item the respondents' indicated if the factor was (1) not a cause, (2) a minor cause, or (3) a major cause. For the analysis, the variables were recoded into dichotomous measures (0) Not a cause/minor cause and (1) major cause.

Lack of moral character and lack of will power were classified as individualistic factors. Genetic predisposition and family history were classified as biological factors. Life stress and relationship problems were classified as environmental factors.

AOD Solutions. The five solutions are grouped into two categories—self-help approaches and treatment approaches. For each item the respondents' indicated if the solution was (1) not at all effective, (2) mildly effective, (3) somewhat effective, or (4) very effective. For the analysis, the solution variables were recoded

into three point scales by combining the not effective and mildly effective categories.

Will power and detoxification were classified as self-help non-treatment solutions. Residential treatment, support groups and outpatient counseling were classified as treatment solutions.

Analysis

This study is based on a secondary analysis of existing data. The purpose of the study is to test a number of hypotheses about the internal consistency of substance abuse models. The hypotheses are tested by examining the associations between indicators of causative AOD factors and potential solutions. All of the variables used in the study are measured with ordinal scales. Cross-classification analysis is used to examine the associations between the causative factors and the perceived effectiveness of the various solutions. The significance of the associations are tested using the Chi-square statistic. An alpha level of .05 or less is used to accept or reject the proposed hypotheses. Cross classification is also used to determine the support for each of the models. Respondents who reported the highest levels of beliefs of both the causitive and solution factors within each model are classified as being highly supportive of that model.

Limitations

The data were originally collected as part of a county-wide needs assessment. The variables included on the questionnaire were therefore not designed specifically for this study. The reliability and validity of the measures are also unknown.

Findings

Table 1 summarizes the hypothesized relationships and reports the significance of the associations between the indicators of the three groups of AOD causative factors and the indicators of the two groups of AOD solutions.

Individual causative factors are hypothesized to be positively associated with self-help type solutions and not associated with treatment approaches. As shown in Table 1, three of the four associations between individual factors have statistically significant positive associations with the self-help type approaches.

Table 1

Significance of Hypothesized Relationships

Causality	Self-Help		Treatment		
	Will Power	Detoxification	Residential Tx.	Support Groups	Counseling
Moral					
Moral Character	.001	n.s.	.05	n.s.	n.s.
Lack Will Power	.001	.01	n.s.	n.s.	n.s.
Disease					
Genetic	n.s.	.01	.001	.001	.01
Family History	n.s.	n.s.	n.s.	.001	.05
Biopsychosocial					
Stress	n.s.	.05	.01	.05	n.s.
Relationships	n.s.	n.s.	n.s.	.05	.05

Note: Associations examined using cross-classification analysis. Significance based on Chi-square statistic.

Conversely, five of the six associations between the individual factors and the treatment approaches are not statistically significant. Thus, eight out of the ten hypothesized associations between the individual causative factors and the AOD solutions were supported.

The biological factors are hypothesized not to be associated with the self-help approaches and to be positively associated with the treatment approaches. Three of the four associations between biological factors and self-help are not statistically significant. On the other hand, five of the six associations between biological factors and treatment approaches are statistically significant. Thus, eight out of the ten hypothesized associations between the biological causative factors and the AOD solutions were supported.

The environmental factors are hypothesized not to be associated with self-help approaches and to be positively associated with treatment approaches. As shown in Table 1, three of the four associations between the environmental factors and self-help solutions are not statistically significant. Conversely, four out of the six associations between the environmental factors and treatment approaches are statistically significant. Thus, seven out of the ten hypothesized associations between the environmental causative factors and the AOD solutions were supported. In summary, 80% of the individual and biological factor hypotheses and 70% of the environmental hypotheses were supported. Overall, 76.6% of the hypotheses examined in this study were supported.

In terms of support for each of the models, 24.0% reported the highest levels of support for the moral model, 22% reported the highest level of support for the disease model, and 25.5% reported the highest level of support for the biopsychosocial model.

Discussion

The findings among the hypotheses tend to support both the assumption of internal consistency among the models, and the assumption that different models with different belief structures exist. The high degree of association among the indicators of the various models, and the lower magnitude, or non-existent relationships among the indicators in the various models clearly lend support to the two assumptions commonly made about the policy models.

Further, high levels of support for any of the given models do not exist. This suggests a level of uncertainty among the general public which might contribute to the ambiguity and uncertainty among the policy makers themselves.

These findings should, however, be treated with caution. The variables included on the questionnaire were not designed specifically for this study. Therefore, the variables available for the analysis are limited, with unknown reliability and validity. Consequently, the indicators of the constructs used here are crude at best and limit the types of analysis that can be used to test the hypotheses. Although the measures appear to represent the theoretical constructs, their limitations must be taken into consideration in evaluating the findings reported here.

Conclusion

In the context of incomplete empirical information and due to a common tendency to overlook empirical fact in favor of ideology, social policy choices often appear irrational. But in fact decisions must be made as our society faces a given problem.

Under these conditions, policy analysis switches to understanding the assumptions that are made about the problems themselves. Social constructivist theory states that these assumptions are rooted in reasonably coherent sets of beliefs about the world, which may be thought of as ideological models.

This paper examined two assumptions of these models: a) the degree to which individual models are internally consistent between beliefs about causes and beliefs about solutions; and b) whether the models assumptions in competing models are in fact different. The findings lent support to both of the statements. But as noted, the findings should be treated with caution. The paper also examined how widespread the support for these models are. It appears that support for each of the models is similar.

This suggests several avenues for future research. First, the indicators used for a study of any given policy area must be more adequately conceptualized. Secondly, a systematic study of the models in several policy areas would be useful to lend further support to the findings here. Thirdly, it would be useful to examine the commonalties among the assumptions in models related

to a variety of policy areas. Is there consistency, for example, in peoples assumptions that problems are rooted in personal factors, or environmental factors, or values? Understanding this would go a long way toward understanding why and how entire classes of policy decisions are made.

Beyond these research questions, one issue requires additional scrutiny. It is clear from this research that multiple, and different ideological frameworks exist. Thus, the question remains, how does it become possible to make coherent policy in the context of multiple frameworks among policy constituents? These models are rooted in very different fundamental social beliefs. As such, support for a given policy direction will vary greatly depending upon its compatibility with a given ideological model. As different belief systems attain political ascendancy, policy directions are likely to change. Thus, long term, coherent policy directions will be difficult to forge unless commonalties across belief systems can be found.

References

Blumer, H. (1971). Social problems as collective behavior. *Social Problems*, 18, 298–306.

DeAngelis, T. (1991). No one method better in treating addiction. *The APA Monitor*, October, p.10.

Drew, L. (1986). Beyond the disease concept of addiction: Drug use as a way of life leading to predicaments. *Journal of Drug Issues*, 16, 263–274.

Ehrenreich, J. (1985) *The altruistic imagination: A history of social work and social policy in the United States.* Ithaca, NY: Cornell University Press.

Finagrette, H. (1989). *Heavy drinking: The myth of alcoholism as a disease.* Berkeley: University of California Press.

Jellineck, E. M. (1960). *The disease concept of alcoholism.* New York: Hillhouse.

Lipsky, M. and Smith, S. (1989). When social problems are treated as emergencies. *Social Service Review*, 63, 5–25.

Reinarman, C. (1988). The social construction of an alcohol problem: The case of mothers against drunk drivers and social control in the 1980s. *Theory and Society*, 17, 91- 120.

Tesh, S. (1988). *Hidden arguments; political ideology and disease prevention policy.* Brunswick, NJ: Rutgers University Press.

Traun, F. (1993). Addiction as a social construction: A postempirical view. *The Journal of Psychology*, 127(5), 489–499.