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ABORTION ATTITUDE INVENTORY
AND ABORTION QUESTIONNAIRE

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
DAVID KIRK MICHELMAN
1969

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ABSTRACT

ABORTION ATTITUDE INVENTORY AND ABORTION QUESTIONNAIRE

BY

David Kirk Michelman

The purpose of the present study was to construct: (1) the Abortion Attitude Inventory (AAI) which measures an individual's general attitude toward induced abortion and his attitude toward permissive abortion in specified circumstances, and (2) the Abortion Questionnaire (AQ) which assesses an individual's knowledge of factual data pertinent to induced abortion.

Abortion Attitude Inventory

The initial AAI version consisted of 18 Likert items. The sum of the 18 item scores was the numerical index of general attitude toward abortion. A Likert item assessing one's general attitude toward permissive abortion accompanied this 18 item scale. Correlating the summed score of the 18 items and the score derived from the response to the general attitude item provided a measure of "self-estimate validity."

This 18 item AAI was administered to a sample of undergraduate students attending Michigan State University (MSU). From these data, a "self-estimate validity" coefficient of .92 was calculated. The AAI was subsequently revised by dropping a nondiscriminating item, rewording several items, and rephrasing Likert headings. This revised 17 item version constituted the final form of the AAI.

That the AAI accurately assesses attitude toward abortion is demonstrated by the following measures of reliability and validity. The administration of the AAI to three samples resulted in test-retest (two week interval) reliability coefficients of .91 and .94, an internal consistency reliability coefficient of .93, and "self-estimate validity" coefficients of .81 and .85. For groups of respondents categorized by the demographic variables of sex, marital status, residential status, religious preference, and socio-economic status, the "self-estimate validity" coefficients ranged roughly from .80 to .94.

Factor analysis of the AAI revealed the items are clustered into 3 factors. The item content of the factors suggested they be labeled social and economic, physical and eugenic, and affective factors.

Abortion Questionnaire

The initial AQ version consisted of 10 multiple choice items, generally with 5 alternatives. This form was administered to a sample of MSU undergraduates. The test-retest (two week interval) reliability coefficient for the measure was .61.

Fourteen items were added and the response alternatives of two items were revised in developing an improved 24 item version. Over a two week interval this new measure showed a test-retest reliability coefficient of .47. Subsequently, the response alternatives of one item and one response alternative of a second item were revised and the AQ assumed its final form.

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With later administrations of the AQ, an internal consistency reliability coefficient of .19 and a test-retest (half-hour interval) reliability coefficient of .82 were determined. Respondents were generally unable to exceed the chance level in responding correctly to these "abortion knowledge" items. Among samples of businessmen, Lansing and East Lansing residents, MSU students, religious leaders, state legislators, obstetricians and gynecologists; only the physicians correctly responded to AQ items above the chance level.

Suggesting that the AQ is both a reliable and valid multidimensional measure of abortion knowledge are these findings that (a) increased reliability coefficients accompanied decreased time between test administrations, (b) medical specialists in obstetrics and gynecology answered more items correctly than members of other professions, and (c) the measure of internal consistency was low in magnitude. Probably, because they generally possess so little knowledge of factual data pertinent to induced abortion, even well educated respondents commonly guess when answering the AQ items. Consequently, the meaningfulness of precise data concerning its reliability and validity must remain uncertain.

Approved



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**ABORTION ATTITUDE INVENTORY
AND ABORTION QUESTIONNAIRE**

BY

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INTRODUCTION

The purpose of the present study was to construct the Abortion Attitude Inventory (AAI) and the Abortion Questionnaire (AQ). The AAI assesses an individual's general attitude toward induced abortion and his attitude toward permissive abortion in specified circumstances. The AQ measures a person's knowledge of factual data pertaining to both legal and illegal induced abortion. Following the description of the AAI's construction, the development of the AQ is presented.

ABORTION ATTITUDE INVENTORY

The AAI was constructed to fulfill the need for an abortion attitude measure of known reliability and validity. Surveyors have generally attempted to assess an individual's attitude toward abortion with instruments of unknown reliability and validity. Such surveys are characterized by their use of a limited number of items. This restriction of items makes more probable a respondent's participation because the few items can be answered in a relatively short period of time. However, the brevity of such surveys enhances the uncertainty of the reliability and validity of the assessment--an uncertainty further augmented by the researcher's failure to report reliability or validity data for the attitude instruments. Furthermore, because the number of items is limited, these surveys often assess the respondent's attitude toward abortion in only several of many important circumstances for which women seek an

abortion. Consequently, the AAI was constructed. It provides for a known reliable and valid assessment of an individual's attitude toward abortion. The AAI also permits the determination of a respondent's attitude toward abortion in a greater number of specified circumstances than do typical survey measures. Although the AAI is more comprehensive than the typical survey instrument, it can also be completed in a relatively short period of time. Its administration and completion require roughly five minutes.

Construction of the AAI

The initial AAI version (AAI₁) consisted of 18 Likert items. (See Appendix A, Exhibit A1.) The order of presentation of the items was purposefully selected to avoid an obvious, progressive gradient of difficult circumstances. To each item the respondent indicated strongly agree, tend to agree, neither agree nor disagree, tend to disagree, or strongly disagree. Ten of the statements are "positively" worded (item numbers 1, 4, 6, 7, 8, 9, 14, 16, 17, 18) and eight are "negatively" worded (item numbers 2, 3, 5, 10, 11, 12, 13, 15). A response of "strongly agree" to the 10 "positively" worded items indicates a strongly favorable attitude toward abortion in the circumstance stated in the particular item. A response of "strongly agree" to the remaining eight items indicates a strongly unfavorable attitude toward abortion in the circumstance stated in the particular item.

The strength of one's attitude, favorable or unfavorable, is assessed for each item by assigning a score of 1, 2, 3, 4, or 5 to the appropriate response category. A score of 1 indicates an attitude strongly favorable toward permissive abortion; 2, tends to be favorable; 3, neither favorable nor unfavorable; 4, tends to be unfavorable; and 5, strongly unfavorable.

The general attitude score is arrived at by summing the scores over all items. General attitude scores for the AAI₁ have a possible range of 18 to 90. The lower the score, the more favorable the attitude toward abortion. Conversely, the higher the score, the more unfavorable the attitude toward abortion.

The instrument was further designed as a self-administrative measure, requiring roughly five minutes for its administration and completion. Directions for answering the form appear at the top of the page and precede the first item.

If three or more items are omitted from the AAI₁, the instrument is considered not scorable. If one or two items are omitted, the average score for the completed items is the score of the unanswered items.

A Likert item designed to assess the respondent's "general attitude" toward permissive abortion was presented after AAI₁ item number 18. (See Appendix A, Exhibit A1.) A response of "strongly support" was scored 1 (strongly favorable toward abortion); "tend to support", 2; "neutral", 3; "tend to oppose", 4; or "strongly opposed", 5. The score obtained on the "general attitude" item

could be correlated with the individual's general attitude score (the summed score of all 18 items) to obtain a "self-estimate validity" coefficient.

Two additional items--one asking the respondent's reasons for his attitude toward permissive abortion and the second, inquiring of his knowledge of abortion laws--followed the "general attitude" item. These items were presented to allow the determination of a "face-validity" estimate of the AAI_1 . The assessment was to be based upon judges' ratings of the correspondence between the answers to these two questions and the responses to the 18 items of the AAI_1 .

Administration of the AAI_1

The AAI_1 was administered in a group setting November 20, 1966, to 28 students enrolled in an introductory psychology course at Michigan State University. The students were given unlimited time to complete the instrument. Two of the 28 students omitted the "general attitude" item. Consequently, the questionnaires of these two students were excluded and the validity statistics were calculated from the response of 26 students. A "self-estimate validity" coefficient (a correlation of the individual's summed score over the 18 items with his score on the general attitude item) was calculated as .92. The relevant mean scores and standard deviation scores (in brackets) were $\overline{AAI}_1 = 53.39$ (SD = 15.42); General Attitude Item (GAI) = 2.81 (SD = 1.23).

A "face validity" estimate was not determined from the ratings of the two questions which followed the general attitude item: one, asking the reasons for the respondent's attitudes toward abortion; and the other, asking for the circumstances under which an abortion could be legally performed. The responses to these questions did not appear appropriate to determine an estimate of the validity of the AAI₁. Responses to the first question generally were reiterations of various inventory items. Answers to the second question (actually an "aptitude" item rather than an "attitude" item) indicated that the respondents as a whole were not knowledgeable of the circumstances in which an abortion could be legally performed. However, the two questions were retained in the subsequent form of the AAI with the second question revised to ask for circumstances in which an abortion could be performed legally under "Michigan Laws" rather than "laws". (See Appendix A, Exhibits A1 and A2.)

Of the 18 items, number 11 was found not to distinguish individuals most favorable from persons least favorable toward abortion. All responses to item number 11 were scored 3, 4, or 5. No responses were scored 1 or 2. Consequently, this item was dropped from the AAI. Also, the wording of items number 3, 15, and 17 was revised so as to make their meaning clearer. The Likert heading, "neither agree nor disagree", of the AAI items was changed to "neutral". The Likert headings for the general attitude item were also revised. Also, the general attitude item, the question asking the respondent's reasons for holding his attitudes, and the revised item asking the circumstances under which abortion was legal in Michigan were placed

on the back side of the paper which contained the 17 items of the revised AAI (AAI_2) on the front side. This rearrangement of items was done to minimize the possibility of the responses to these three items (actually not items of the AAI) influencing the responses to the 17 statements of the AAI_2 . (See Appendix A, Exhibits A1 and A2.)

First Administration of the AAI_2

The revised 17 item AAI_2 with a possible range of scores from 17 to 85 was administered January 26, 1967, to a sample of 39 students enrolled in an introductory psychology course at Michigan State University. As in the case of the AAI_1 administration, the AAI_2 was administered in a group setting and the students were given unlimited time to complete the inventory.

A "self-estimate validity" coefficient was found to be .81. The relevant means and standard deviations (bracketed) were: $\overline{AAI_2} = 51.46$ (12.96); General Attitude Item ($\overline{CAI}$) = 3.05 (1.32). The respective ranges of these two scores were: $AAI_2 = 18 - 76$; $CAI = 1 - 5$.

Reliability estimates were derived from the scores of 30 of the 39 students composing the "validity sample". These 30 students answered the AAI_2 February 9, 1967, two weeks following their initial completion of this instrument. (Nine students present at the first administration of the AAI_2 were absent at the second administration.) A test-retest (two week interval) reliability coefficient was calculated as .94 for the AAI_2 and .88 for the general attitude item. (See Table 1.)

Table 1
Test-retest Reliability of AAI₂

	<u>AAI SUM SCORE</u>			<u>GENERAL ATTITUDE ITEM</u>		
	$\bar{X}$	s	Range	$\bar{X}$	s	Range
First Test Administration	53.63	12.19	18-76	3.30	1.21	1-5
Second Test Administration	52.03	13.24	17-81	3.23	1.14	1-5
r (AAI Sum Score) = .94						
r (General Attitude Item) = .88						

The questions asking for the respondent's reasons for having his attitudes toward abortion and circumstances in which abortion was legally permitted in Michigan laws again elicited responses unsuitable for the derivation of a validity estimate of the AAI₂. As in the previous sample of students, reasons for their attitudes were simply reiterations of several AAI items. Similarly, the students, in general, possessed little, if any, knowledge of the circumstances under which an abortion is legal in Michigan. Consequently, these two items were omitted in subsequent administrations of the AAI₂.

Also, in future administrations of the inventory, when the general attitude item was to be given with the AAI₂, rather than being located on the same piece of paper as the AAI items, it was presented on a separate page. (See Appendix A, Exhibits A3 and A4.)

Second Administration of the AAI₂

The AAI₂ was administered February 9, 1968, and February 23, 1968, (one year after an administration to a previous sample of students) to a group of 38 students enrolled in an introductory psychology course at Michigan State University. (Forty-six students answered the AAI₂ on February 9, however, 8 of these were absent for the second test administration. Consequently, the reliability sample is composed of 38 individuals.) Again, there was no time restriction for the completion of the group administered AAI₂.

This testing was based on the awareness that college students as a test sample can vary from year to year and was conducted to determine if the high test-retest reliability coefficient determined from the student sample one year earlier would hold over a second sample. The test-retest (two week interval) reliability coefficient derived from the scores of this later sample was calculated as .91. This reliability estimate of .91 corresponds closely with the reliability estimate of .94 calculated from the prior sample. The relevant means, standard deviations (bracketed) and ranges of these measures for the second sample, first administration, were: AAI₂ = 41.61 (11.94), 17 - 71; second administration, AAI₂ = 40.63 (12.74), 17 - 68.

Third Administration of the AAI₂

Measures of validity and reliability of the AAI₂ were also derived from the data of a sample of 131 individuals tested in the summer of 1967. Of the 131 persons, 89 were residents of Lansing and East Lansing, Michigan and 42 were undergraduates attending Michigan State University. The AAI₂ was distributed to the Lansing and East Lansing residents through face-to-face contact at the respondent's door. With the exception of two inventories which were returned by mail, the AAI₂ was collected during door-to-door calls. There was a minimum period of three days between the AAI₂'s distribution and its collection. Consistent with previous test administrations, the students were administered the AAI₂ in a group setting and they were given unlimited time to complete the inventory.

Answering an information face sheet which preceded the AAI₂, all of the respondents supplied demographic data concerning their age, marital status, sex, religious preference, occupation and educational achievement. (If the respondent was a student, he reported his father's occupation and educational attainment.) Using the occupational and educational data, an estimate of the respondent's socio-economic status was determined from the Hollinghead (1957) Two Factor Index of Social Position. In addition to the calculation of a "self-estimate validity" coefficient for the total sample of 131 persons, having the demographic information recorded on the face sheet, permitted the determination of "self-estimate validity" coefficients for subgroups, categorized by demographic variation, of the total sample.

For the complete sample of 131 persons, a "self-estimate validity" coefficient of .85 was determined. (See the last line entry in Table 2.) Among the demographic subgroups of the total sample, validity estimates range from .76 to .98 over all but one of these 15 groups. Although these sub-groups are not statistically independent, the magnitude of the validity coefficients indicate that the validity of the AAI₂ holds for such subdivisions of the general population. (See Table 2.) Only the $r = -.30$ for the small subgroup of 5 Agnostics deviates from the high positive correlations found for all other groups.

Table 2
"Self-estimate Validity" Coefficients Over
Demographic Classifications

<u>Categorized Subsamples</u>	<u>N</u>	<u>$\bar{X}$(AAI)</u>	<u>s(AAI)</u>	<u>$\bar{X}$(GEN-ATTIT)</u>	<u>s(GEN-ATTIT)</u>	<u>r</u>
<u>Sex</u>						
Males	60	41.53	14.46	2.28	1.19	.83
Females	71	45.80	15.97	2.87	1.35	.86
<u>Marital Status</u>						
Single	43	41.14	13.38	2.33	1.32	.77
Married	83	44.99	16.15	2.71	1.29	.88
<u>Residential Status</u>						
Student	42	40.45	13.39	2.29	1.25	.81
Resident	89	45.45	16.07	2.75	1.32	.86

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Table 2 (cont'd.)

<u>Categorized Subsamples</u>	<u>N</u>	<u>$\bar{X}$(AAI)</u>	<u>s(AAI)</u>	<u>$\bar{X}$(GEN-ATTIT)</u>	<u>s(GEN-ATTIT)</u>	<u>r</u>
<u>Religious Preference</u>						
Protestantism	82	42.00	12.37	2.43	1.18	.76
Catholicism	32	56.47	15.27	3.63	1.21	.89
Judaism	7	27.57	14.79	1.57	1.13	.98
Agnosticism	5	23.60	4.83	1.20	0.48	-.30
<u>Socio-economic Status*</u>						
Class I	32	38.78	14.72	2.16	1.17	.81
Class II	36	44.47	12.34	2.67	1.22	.84
Class III	23	44.39	18.29	2.57	1.44	.85
Class IV	33	45.91	16.04	2.97	1.38	.90
Class V	7	52.29	16.75	2.71	1.38	.94
Total General Sample	131	43.85	15.39	2.60	1.31	.85

Range of scores of Total General Sample: 17-84.

*From the appearance of their residential neighborhood, 62 persons judged to be living in lower income districts, 64 persons residing in middle income districts, and 62 people living in higher income areas, were administered the AAI. The Hollingshead (1957) Two Factor Index of Social Position more precisely classified these people, as well as 46 Michigan State Undergraduates, as being member of class I, II, III, IV, or V. To each individual, the AAI was administered as part of a booklet also consisting of the AQ and three personality trait instruments. (The AAI was included with the AQ and three personality trait measures as these were the materials used in a more comprehensive study of which this thesis was a part.) If the respondent omitted a sufficient number of items from the AAI or any one of the remaining questionnaires so as to make one of these forms "not scorable", his AAI was not scored. When the less educated class V person was able to answer the AAI items, he, more often than the other socio-economic class members, frequently found the personality measures difficult to answer so that he "spoiled" them, probably owing to poor reading skill and as a result his AAI was not scored. Consequently, this scoring criteria resulted in a restriction of AAI data for class V. Also, class V representation was restricted by the general lower rate of booklet return from persons residing in lower income districts, and, in several cases, by the class V respondent's inability to read AAI as well as other instrument items.

Further analysis of the data obtained from the sample of 131 persons yielded an internal consistency reliability coefficient of .93. (See Table 3.) An internal consistency estimate of this magnitude suggests that the items are highly correlated with each other and that the instrument is a uni-dimensional measure of attitude.

Table 3

Internal Consistency Reliability of AAI₂

<u>Item Number</u>	<u>$\bar{X}$</u>	<u>s</u>
1	1.66	1.15
2	2.51	1.37
3	1.85	1.04
4	3.17	1.41
5	2.20	1.44
6	3.92	1.33
7	3.38	1.44
8	3.31	1.41
9	2.72	1.39
10	3.14	1.44
11	2.57	1.35
12	1.77	1.26
13	2.18	1.40
14	1.77	0.98
15	2.08	1.27
16	2.62	1.17
17	2.99	1.45
AAI (All Items)	43.85	15.39

$N = 131$

$\underline{r} = .93$

A factor analysis was applied to the intercorrelation matrix of the 17 AAI₂ items. (This matrix and each item's correlation with the AAI₂ summed score is presented in Appendix B.) The factor analytic technique of quartermax rotation indicates that while attitude is quite consistent over the 17 items, even greater attitude consistency is obtained within clusters of correlated items. A three factor solution which accounted for 66 per cent of the variance of the general attitude score (or $r = .82$) identified three rather discrete clusters of correlated items. (See Table 4.) Factor I contains high loadings on items number 2 (court judged unfit mother), 4 (pregnant but unmarried woman), 6 (any woman), 7 (poverty), 8 (woman 45+ years of age), 9 (woman judged psychologically incapable), 10 (woman pregnant and obtaining a divorce), 17 (child unwanted and treated as such).^{*} These items concern granting or refusing abortion for social and economic considerations. Abortion in any one of these situations--other than that of item number 9 (woman judged psychologically incapable)--has not been legalized by the legislature of a single state. The situations implied in these items have not been as open to public scrutiny as have the situations implied in the items composing Factor II.

The second factor has high loadings on items which primarily concern permitting or prohibiting abortion for physical and eugenic considerations: items number 1 (pregnancy following rape), 5 (possibility of malformed baby), 12 (never permitted),

^{*}These abbreviated situations are stated in complete form in the AAI items presented in Appendix A, Exhibit A3.

13 (personal consideration of having an abortion), 15 (women's life in danger with delivery). Abortion in the situations implied in these items has presently been legalized in seven states and is being considered in other state legislatures.

Factor III, relevant to affective aspects of condoning or prohibiting abortion, has high loadings on items number 3 (misfortune after abortion), 11 (love of children), 14 (irresponsibility), 16 (satisfied and comfortable after an abortion).

Table 4

Factor Analysis of AAI₂

<u>AAI ITEM NUMBER</u>	<u>COMMUNALITY</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	<u>FACTOR III</u>
1	.80	.40	-.80	.09
2	.42	.62	-.18	.08
3	.58	.07	-.06	.76
4	.75	.85	-.13	.10
5	.48	.39	-.51	.26
6	.75	.86	.07	-.02
7	.83	.90	-.10	.03
8	.82	.90	-.11	.04
9	.69	.79	-.23	.11
10	.43	.65	.08	.04
11	.57	.33	-.23	.64
12	.80	.49	-.68	.30
13	.77	.42	-.76	.12
14	.64	.35	-.17	.69

Table 4 (cont'd.)

<u>AAI ITEM NUMBER</u>	<u>COMMUNALITY</u>	<u>FACTOR I</u>	<u>FACTOR II</u>	<u>FACTOR III</u>
15	.70	.43	-.71	.12
16	.58	.43	-.19	.60
17	.71	.80	-.25	.09
Proportions of variance:		.38	.16	.12

Discussion and Conclusion

The method of constructing the AAI, the high "self-estimate validity" coefficients (.81 and .85), and the high reliability coefficients (.91 and .94, test-retest with a two week interval) indicate the AAI very accurately and reliably assesses an individual's attitude toward abortion. In contrast to the abortion measures of unknown reliability and validity used by many surveyors, the AAI permits one to draw conclusions of known accuracy from the AAI attitude data. The AAI further provides for the assessment of a persons attitude toward abortion over a greater range of circumstances than is commonly found in survey measures. While the AAI is comprehensive in the assessment of attitude toward abortion over a wide variety of circumstances, it can still be administered and completed in a short period of time--roughly five minutes. Consequently, the AAI maintains the surveyor's requirement of brevity, not discouraging respondent participation because of excessive length, while it enables the researcher to obtain an increased amount of meaningful attitude information.

An additional feature of the AAI is that it measures the strength of the respondent's attitude. Rather than the typical "yes, no, undecided" survey approach which makes it difficult to assess the strength of an individual's attitudes, the AAI, being built of Likert scaled items, makes this more sensitive assessment possible.

ABORTION QUESTIONNAIRE

The Abortion Questionnaire (AQ) is a 24 item multiple choice instrument designed to determine the individual's knowledge of induced abortion--pertinent information regarding socio-economic groups, races, religions, economic data, consequences, cross-national data, physiological aspects, and the general and specific incidence of induced abortion (legal or illegal) in the United States.

Only one study has attempted to assess the public's factual knowledge of induced abortion. A survey conducted by Oliver Quayle and Company for the Association for the Study of Abortion (ASA survey of public opinion, 1968) found that New York State residents were generally ignorant of the content of that state's abortion statute. The New York residents also overestimated the risk to maternal health from an abortion induced by a licensed physician. In its assessment of knowledge over many categories in addition to the content of state statutes and the safety of a medical abortion, the AQ greatly expands upon the information obtained from the "knowledge measure" used in the ASA survey. It provides for the broad assessment of a

person's general knowledge of abortion and permits a rather precise determination of specific areas of abortion knowledge with which he is or is not acquainted.

Construction of the AQ

The initial AQ version (AQ₁) consisted of 10 multiple choice items with five alternatives. (Having four alternatives, item number 3 is an exception.) Each item was scored as either correct or incorrect. The questions were derived primarily from the books of Lader (1966) and Lowe (1966). The information presented by these authors tends to represent the consensus of the authorities in the "field" of abortion.

The AQ₁ was designed as a self-administrative instrument with the directions for answering the form appearing at the top of the page and preceding the first item. (See Appendix C, Exhibit C1.)

Administration of the AQ₁

The AQ₁ was administered in a group setting to 30 students enrolled in an introductory psychology course at Michigan State University. (Because 9 of the 39 students present for the first test administration were absent for the second test administration, this test-retest reliability sample was composed of 30 students.) For the completion of the measure, the students were given an unlimited amount of time. The test-retest (two week interval)

reliability coefficient was calculated to be .61. For the initial AQ_1 administration, the mean AQ_1 score was 2.00 ($SD = 1.39$); the second administration mean was 1.90 ($SD = 1.21$). Weighting the response alternatives according to their "distance" from the correct response did not appreciably improve this reliability coefficient.

After the AQ_1 administration, the instrument was revised to form the AQ_2 . Fourteen items were added to the original 10 items. These additional items were also constructed from the data presented by Lader (1966) and Lowe (1966). Also, the response alternatives of items number 4 and 9 were revised. (See Appendix C, Exhibits C1 and C2.) If five or more items of the 24 item AQ_2 are omitted, the instrument is considered not scorable. If four or less items are not answered, each of the omitted items is scored as incorrect.

Administration of the AQ_2

An estimate of the test-retest (two week interval) reliability of the AQ_2 was derived from the data obtained from 38 Michigan State University students enrolled in an introductory psychology course. The test was group administered with unlimited time provided for its completion. The reliability coefficient was .47; on the first administration the mean AQ_2 was 5.26 ($SD = 2.13$)--two weeks later the corresponding scores were $\overline{AQ}_2 = 5.82$ ($SD = 2.53$).

After the AQ_2 administration, the response alternatives to item number 14 and one response alternative to item number 16 were revised. The resultant AQ form (AQ_3) was the final version of the AQ . (See Appendix C, Exhibits C2 and C3.)

First Administration of the AQ₃

From the AQ₃ sample response data of 131 individuals--89 residents of Lansing and East Lansing and 42 undergraduates attending Michigan State University--an internal consistency reliability estimate of .19 was calculated. These data are summarized in Table 5. (Because the AQ₃ was administered with the AAI₂, procedural details of the AQ₃ administration are provided in the description of the third administration of the AAI₂ on page 9.)

Table 5
Internal Consistency Reliability of AQ₃

<u>ITEM NUMBER</u>	<u>NO. OF CORRECT RESPONSES</u>	<u>$\bar{X}$</u>	<u>s</u>
1	16	.12	.33
2	46	.35	.48
3	26	.20	.40
4	52	.40	.49
5	39	.30	.46
6	61	.47	.50
7	43	.33	.47
8	17	.13	.34
9	14	.11	.31
10	40	.31	.46
11	4	.03	.17
12	11	.08	.28

Table 5 (cont'd.)

<u>ITEM NUMBER</u>	<u>NO. OF CORRECT RESPONSES</u>	<u>$\bar{X}$</u>	<u>s</u>
13	61	.47	.50
14	48	.37	.48
15	6	.05	.21
16	81	.62	.49
17	3	.02	.15
18	36	.27	.45
19	30	.23	.42
20	17	.13	.34
21	41	.31	.47
22	13	.10	.30
23	1	.01	.09
24	30	.23	.42
Total	735	5.61	2.13

N = 131

 $\bar{r} = .19$

The estimate of internal consistency calculated as .19 and an "intuitive assessment" of the items' content suggest the AQ₃ is multidimensional, measuring an individual's knowledge of many and various aspects of abortion.

Second Administration of the AQ₃

Samples of religious leaders, physicians, legislators, and businessmen were mailed the AQ₃. Included with the questionnaire

was an introductory form letter; a stamped, self-addressed, return envelope; and, an additional form for specific professional groups. The religious leaders were asked to specify their religious denomination; the physicians were asked to indicate whether they were practicing gynecology and/or obstetrics; the legislators were asked to identify themselves as members of the house or senate. (This information was requested to provide data for comparisons of the amount of knowledge possessed among, or between, different subgroups within each professional body. However, the small number of returns from various professional subgroups did not permit these comparisons.)

It was expected that physicians--having rather extensive contact with women who seek abortion, being exposed to abortion articles in medical journals, and having knowledge of the medical procedures used to induce abortion and possible physical consequences of the operation--would answer more AQ₃ items correctly than would each of the other professional groups.

Procedure

Religious Leaders

The materials were mailed to 218 leaders of religious groups of all faiths from the greater Lansing area. These religious leaders included all those listed by the Lansing Area Council of Churches. Of the 218 clergymen, 68 returned scorable forms of the AQ₃.

Physicians

The physician sample was composed of 200 gynecologists and/or obstetricians randomly selected from a list of 310 Boarded

specialists, residing in Michigan, from the Directory of Medical Specialists (1965). Scorable returns were submitted by 88 physicians.

Legislators

The materials were mailed to all members of the 1967-1968 State of Michigan legislature--109 members of the House of Representatives and 38 members of the Senate. Scorable AQ₃'s were obtained from 34 legislators.

Businessmen

The sample of businessmen constituted 200 persons randomly selected from approximately 800 members of the Firm Head organization of the Lansing Chamber of Commerce. Seventy-five returned scorable forms of the AQ₃.

Results

Knowledge of abortion was found to differ significantly ($p < .001$) among gynecologists and/or obstetricians, legislators, religious leaders, and businessmen. (See Table 6.)

Table 6

One-way Analysis of Variance of Knowledge of Abortion
Among Professional Groups

<u>Source of Variance</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Categories	3	233.01	43.08	0.001
Within Categories	261	5.41		
Total	264			

Using Scheffe's (in Hays, 1963) method of analysis, physicians were found to possess more knowledge of abortion ($p < .001$) than each of the other groups. Legislators, religious leaders, and businessmen did not differ between themselves. The pertinent data for each of these four groups is presented in Table 7.

Table 7

Knowledge of Abortion Among Professional Groups

<u>Group</u>	<u>N</u>	<u>$\overline{AQ}_3$</u>	<u>SD</u>
Physicians	88	9.60	2.39
Legislators	34	6.56	2.31
Religious Leaders	68	6.09	2.39
Businessmen	75	6.07	2.19

Of the four professional groups, only the physicians' AQ_3 scores differed significantly from that expected from chance ($p < .02$; $z = 2.44$, two-tailed). The AQ_3 scores of legislators, religious leaders, and businessmen did not exceed the chance level. (The AQ_3 scores of the sample of 89 Lansing and East Lansing residents and 42 Michigan State University students also did not exceed the chance level; see the last line entry of Table 5.)

Although not permitting the derivation of a validity estimate of a specified magnitude, the finding that physicians, as expected, did correctly answer more AQ_3 items than did the other samples, suggests that the AQ_3 provides a valid assessment (of some magnitude) of the respondent's knowledge of induced abortion.

Third Administration of the AQ₃

When the 24 item AQ₂ was administered to a sample composed entirely of Michigan State University students, the mean number of correct responses and the standard deviation of the AQ₂ scores were larger for the second test administration than for the first test administration. (See page 18.) This finding suggests that some individuals may have sought the answers to the questions after the first AQ₂ administration. Consequently, the test-retest estimate (dependent upon the mean and variance) is lower than the estimate expected had not the new information been obtained. To test this hypothesis and control for this possibility, the AQ₃ was administered to a sample of 73 Michigan State University students.*

The test-retest interval for this AQ₃ administration was one-half hour. During this time interval, the students heard a lecture on drug usage for which they generally took notes. As compared to the two week interval used in the AQ₂ administration which permitted information seeking behavior during the period, the one-half hour interval used in the AQ₃ administration served to greatly reduce the students' ability to exchange information among themselves and prevented their referring to authoritative sources.

*Because the AQ₂ and the AQ₃ are identical with the exception of different response alternatives to item number 14 and one different response alternative to item number 16, the reliability estimates of the AQ₂ and the AQ₃ are being compared.

From the AQ_3 data provided by the 73 students, a test-retest (one-half hour interval) reliability coefficient of .82 was determined. For the first administration, $\overline{AQ}_3 = 5.64$ ($SD = 2.34$); second administration, $\overline{AQ}_3 = 5.93$ ($SD = 2.40$). Although the amount of the increase is not great, the mean AQ_3 score and the standard deviation were again larger for the second as compared to the first test administration. This finding suggests that although some persons may seek information between test administrations, information acquired during the test-retest interval is not the only or most significant factor resulting in the low reliability estimates. The most plausible explanation for the relatively low test-retest reliability estimates of the AQ_2 (.47, two week interval) and the AQ_3 (.82, one-half hour interval) is that the magnitude of such estimates primarily results from respondent guessing. In neither of these samples did the respondents answer correctly more items than that expected from chance. (Similarly, among the professional groups and the sample of Lansing and East Lansing residents and students discussed earlier, only the physicians answered more items correctly than the number expected from chance. Also, many respondents stated directly that they were "simply guessing" when they answered a form of the AQ .) Answering items on the basis of guessing rather than on the basis of knowledge would result in a person's being more apt to alter prior answers when he is again administered the AQ . Consequently, respondent guessing appears to be reflected in the relatively low test-retest reliability estimates of the AQ and makes difficult a clear, meaningful interpretation of these reliability data.

Discussion and Conclusion

In measuring a person's knowledge of induced abortion, the AQ₃ appears to provide a multidimensional assessment of his knowledge over many areas--such as social-economic, racial, medical, financial, physical and mental outcome, and incidence--pertinent to legal and illegal induced abortion.

Suggesting that the questionnaire provides a reliable measure of knowledge is the finding that the test-retest reliability estimate increases as the time between test administrations decreases. However, the magnitude of these test-retest reliability coefficients is not extremely large--.47, 24 item AQ₂ (two week interval); .82, 24 item AQ₃ (one-half hour interval). (With a two week interval, the test-retest reliability coefficient of the 10 item AQ₁ was .61.)

Respondent guessing appears to have resulted in the relatively small magnitude of these reliability estimates and makes difficult a clear, meaningful interpretation of these precise reliability data. Among the many samples administered a form of the AQ, only physicians answered correctly a mean number of items which differed significantly from that number expected from chance. Also, many respondents stated that their answers to the AQ were "simply guesses."

Providing evidence that the AQ is a meaningful and valid measure was the finding, consistent with expectation, that physicians specializing in gynecology and/or obstetrics, answered correctly a significantly greater number of AQ items than did groups of religious leaders, legislators, and businessmen.

BIBLIOGRAPHY

BIBLIOGRAPHY

- ASA survey of public opinion on abortion in New York. ASA Association for the study of Abortion, Newsletter, 1968, 3 (1), 2-3.
- Directory of medical specialists. Vol. 12. Chicago: Marquis--Who's Who Incorporated, 1965.
- Hays, W. L. Statistics for psychologists. New York: Holt, Rinehart and Winston, 1963.
- Hollingshead, A. B. Two factor index of social position. New Haven, Connecticut: 1965 Yale Station, 1957.
- Lader, L. Abortion. Boston: Beacon Press, 1966.
- Lowe, D. Abortion and the law. New York: Pocket Books, 1966.

APPENDICES

APPENDIX A

FORMS OF THE AAI AND ASSOCIATED ITEMS

Exhibit A1

ABORTION ATTITUDE INVENTORY*

The following statements are to be judged by you to indicate how well they agree or disagree with your own opinion. The statements themselves are both agreed and disagreed with by many people, so there are no "right" or "wrong" answers. Please read each statement, then show your opinion by circling the letters which best represent your own view.

Your own sex is: male _____; female _____.

	SA	a	N	d	SD
	<u>Strongly Agree</u>	<u>Tend to Agree</u>	<u>Neither Agree Nor Disagree</u>	<u>Tend to Disagree</u>	<u>Strongly Disagree</u>
1. Abortion should be permissible in cases of pregnancy following rape.	SA	a	N	d	SD
2. A woman judged by the courts to be an unfit mother should not be granted an abortion.	SA	a	N	d	SD
3. Only misfortune will follow a woman after having had an abortion.	SA	a	N	d	SD
4. An abortion should be allowed if a woman is pregnant but unmarried.	SA	a	N	d	SD
5. Abortions should not be granted when there exists a strong possibility the baby would be malformed.	SA	a	N	d	SD
6. An abortion should be granted to any woman requesting one.	SA	a	N	d	SD
7. The wife from a poverty stricken home (yearly income less than \$3000) should be granted an abortion.	SA	a	N	d	SD

*As this version of the AAI actually appeared when it was distributed among subjects, items number 1-15 followed the directions and were presented on the front of a single sheet of paper. Items 16-18 and the questions inquiring about the respondent's general attitude toward abortion, his reasons for his attitudes, and his knowledge of abortion laws were located on the back of the paper.

Exhibit A1 (cont'd.)

- | | | | | | |
|---|----|---|---|---|----|
| 8. A woman 45 years of age or older should be granted an abortion on request. | SA | a | N | d | SD |
| 9. A woman judged to be psychologically incapable of being an adequate mother should be allowed an abortion. | SA | a | N | d | SD |
| 10. An abortion should not be allowed if a woman is pregnant and is obtaining a divorce from her husband. | SA | a | N | d | SD |
| ✓ 11. The risk of serious injury is great from an abortion performed by a competent medical doctor. | SA | a | N | d | SD |
| 12. A woman who loves children would never consider an abortion for herself. | SA | a | N | d | SD |
| 13. An abortion should never be permitted. | SA | a | N | d | SD |
| 14. (If female) There are circumstances under which I would consider having an abortion. | SA | a | N | d | SD |
| (If male) There are circumstances under which I would approve of my wife's or girlfriend's having an abortion. | SA | a | N | d | SD |
| 15. A woman requesting an abortion is irresponsible. | SA | a | N | d | SD |
| 16. If a woman's life is in danger with delivery of the baby, an abortion should be performed. | SA | a | N | d | SD |
| 17. A woman after having had an abortion could feel satisfied and comfortable with her decision and it's results. | SA | a | N | d | SD |
| 18. In a family where a child is unwanted and would be treated as such, the wife should be granted an abortion. | SA | a | N | d | SD |

 My general attitude toward the permission of abortion is: (encircle the appropriate number)

1	2	3	4	5
Strongly Support	Tend to Support	Neutral	Tend to Oppose	Strongly Oppose

Exhibit A1 (cont'd)

The main reasons that I am against or in favor of more permissible abortion laws are:

1.

2.

3.

I understand the present laws to permit an abortion under the following circumstances:

1.

2.

3.

Exhibit A2

ABORTION ATTITUDE INVENTORY*		SA	a	N	d	SD
The following statements are to be judged by you to indicate how well they agree or disagree with your own opinion. The statements themselves are both agreed and disagreed with by many people, so there are no "right" or "wrong" answers. Please read each statement, then show your opinion by circling the letters which best represent your own view.		<u>Strongly Agree</u>	<u>Tend to Agree</u>	<u>Neutral</u>	<u>Tend to Disagree</u>	<u>Strongly Disagree</u>
1.	Abortion should be permissible in cases of pregnancy following rape.	SA	a	N	d	SD
2.	A woman judged by the courts to be an unfit mother should not be granted an abortion.	SA	a	N	d	SD
3.	After a woman has had an abortion, misfortune will probably follow.	SA	a	N	d	SD
4.	An abortion should be allowed if a woman is pregnant but unmarried.	SA	a	N	d	SD
5.	Abortions should not be granted when there exists a strong possibility the baby would be malformed.	SA	a	N	d	SD
6.	An abortion should be granted to any woman requesting one.	SA	a	N	d	SD
7.	The wife from a poverty stricken home (yearly income less than \$3000) should be granted an abortion.	SA	a	N	d	SD
8.	A woman 45 years of age or older should be granted an abortion on request.	SA	a	N	d	SD
9.	A woman judged to be psychologically incapable of being an adequate mother should be allowed an abortion.	SA	a	N	d	SD

*As this form of the AAI actually appeared when it was distributed among subjects, items number 1-17 followed the directions and were presented on the front of a single sheet of paper. The questions inquiring about the respondent's general attitude toward abortion, his reasons for his attitudes, and his knowledge of Michigan abortion laws were located on the back of the paper.

Exhibit A2 (cont'd.)

- | | | | | | |
|---|----|---|---|---|----|
| 10. An abortion should not be allowed if a woman is pregnant and is obtaining a divorce from her husband. | SA | a | N | d | SD |
| 11. A woman who loves children would never consider an abortion for herself. | SA | a | N | d | SD |
| 12. An abortion should never be permitted. | SA | a | N | d | SD |
| 13. (If female) There are circumstances under which I would consider having an abortion. | SA | a | N | d | SD |
| (If male) There are circumstances under which I would approve of my wife's or girlfriend's having an abortion. | SA | a | N | d | SD |
| 14. Probably most women requesting an abortion are irresponsible. | SA | a | N | d | SD |
| 15. If a woman's life is in danger with delivery of the baby, an abortion should be performed. | SA | a | N | d | SD |
| 16. After an abortion a woman could feel satisfied and comfortable with her decision and its results. | SA | a | N | d | SD |
| 17. In a family where a child is unwanted and would be treated as such, the wife should be granted an abortion. | SA | a | N | d | SD |

My general attitude toward the permission of abortion is: (encircle the appropriate number)

Strongly	Tend to	Neutral	Tend to	Strongly
1	2	3	4	5
Favor	Favor		Oppose	Opposed

The main reasons that I am opposed to or in favor of more permissive abortion laws are:

1.

2.

3.

Exhibit A2 (cont'd.)

I understand the present Michigan laws to permit an abortion under the following circumstances:

1.

2.

3.

Exhibit A3

ABORTION ATTITUDE INVENTORY*

The following statements are to be judged by you to indicate how well they agree or disagree with your own opinion. The statements themselves are both agreed and disagreed with by many people, so there are no "right" or "wrong" answers. Please read each statement, then show your opinion by circling the letters which best represent your own view.

	SA	a	N	d	SD
	<u>Strongly Agree</u>	<u>Tend to Agree</u>	<u>Neutral</u>	<u>Tend to Disagree</u>	<u>Strongly Disagree</u>
1. Abortion should be permissible in cases of pregnancy following rape.	SA	a	N	d	SD
2. A woman judged by the courts to be an unfit mother should not be granted an abortion.	SA	a	N	d	SD
3. After a woman has had an abortion, misfortune will probably follow.	SA	a	N	d	SD
4. An abortion should be allowed if a woman is pregnant but unmarried.	SA	a	N	d	SD
5. Abortions should not be granted when there exists a strong possibility the baby would be malformed.	SA	a	N	d	SD
6. An abortion should be granted to any woman requesting one.	SA	a	N	d	SD
7. The wife from a poverty-stricken home (yearly income less than \$3,000) should be granted an abortion.	SA	a	N	d	SD
8. A woman 45 years of age or older should be granted an abortion on request.	SA	a	N	d	SD
9. A woman judged to be psychologically incapable of being an adequate mother should be allowed an abortion.	SA	a	N	d	SD

*As this form of the AAI actually appeared when it was distributed among subjects, items number 1-17 followed the directions and were presented on the front of a single sheet of paper.

Exhibit A3 (cont'd.)

- | | | | | | |
|---|----|---|---|---|----|
| 10. An abortion should not be allowed if a woman is pregnant and is obtaining a divorce from her husband. | SA | a | N | d | SD |
| 11. A woman who loves children would never consider an abortion for herself. | SA | a | N | d | SD |
| 12. An abortion should never be permitted. | SA | a | N | d | SD |
| 13. (If female) There are circumstances under which I would consider having an abortion. | SA | a | N | d | SD |
| (If male) There are circumstances under which I would approve of my wife's or girl-friend's having an abortion. | SA | a | N | d | SD |
| 14. Probably most women requesting an abortion are irresponsible. | SA | a | N | d | SD |
| 15. If a woman's life is endangered by the delivery of a baby, an abortion should be performed. | SA | a | N | d | SD |
| 16. After an abortion a woman could feel satisfied and comfortable with her decision and its results. | SA | a | N | d | SD |
| 17. In a family where a child is unwanted and would be treated as such the wife should be granted an abortion. | SA | a | N | d | SD |

Exhibit A4

My general attitude toward the permission of abortion is: (encircle the appropriate number)

Strongly	Tend to	Neutral	Tend to	Strongly
1	2	3	4	5
Favor	Favor		Oppose	Oppose

APPENDIX B

AAI₂ INTERITEM CORRELATION MATRIX

<u>Item #</u>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	AAI Sum Sc*
1																		
2	.35																	
3	.16	.21																
4	.49	.51	.13															
5	.51	.37	.21	.44														
6	.31	.35	.05	.73	.27													
7	.43	.52	.11	.76	.43	.74												
8	.43	.47	.14	.73	.38	.78	.84											
9	.49	.62	.17	.64	.43	.58	.68	.71										
10	.26	.41	.07	.46	.26	.49	.48	.50	.48									
11	.32	.24	.32	.35	.40	.25	.35	.38	.39	.23								
12	.78	.45	.32	.56	.51	.38	.52	.52	.59	.24	.48							
13	.73	.36	.20	.43	.51	.35	.43	.50	.52	.24	.39	.70						
14	.37	.27	.43	.38	.41	.28	.34	.33	.40	.28	.46	.48	.36					
15	.66	.39	.19	.42	.49	.35	.49	.48	.45	.30	.41	.68	.68	.35				
16	.42	.27	.31	.49	.33	.37	.42	.41	.37	.21	.55	.51	.39	.50	.37			
17	.50	.56	.15	.69	.42	.60	.78	.74	.69	.35	.33	.59	.52	.41	.50	.46		
AAI Sum Sc*	.70	.64	.33	.80	.64	.69	.82	.82	.80	.55	.58	.79	.71	.59	.70	.62	.81	
<u>Item #</u>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	AAI Sum Sc*

N = 131

*Summed score over all 17 items.

APPENDIX C

FORMS OF THE AQ

Exhibit C1

Abortion Questionnaire

The following questions concern the topic of abortion. Circle the choice which best answers the question. Please do not omit any items; "guess" at the best answer when in doubt.

1. Approximately how many abortions do you believe occur each year in the United States: (a) 50,000 (b) 200,000 (c) 500,000 (d) 700,000 (e) 1,500,000.
2. Approximately how many legal abortions do you believe occur each year in the United States: (a) 300,000 (b) 100,000 (c) 40,000 (d) 10,000 (e) 1,000.
3. Most abortions are performed on: (a) unmarried women (b) married women with children (c) married women without children (d) divorcees.
4. Medical authorities view abortion as a distinctly more difficult procedure after pregnancy has progressed through the: (a) fourth week (b) sixth week (c) ninth week (d) thirteenth week (e) eighteenth week.
5. Which of the following countries has the most permissive abortion laws: (a) U S S R (b) Japan (c) Sweden (d) Norway (e) India.
6. Scientific studies of the consequences of medically performed abortion indicate that the percentage of women who experience serious physiological impairment from the experience is nearest to: (a) 80% (b) 60% (c) 40% (d) 20% (e) 5%
7. The number of women in the United States who die annually as a consequence of our restrictive abortion laws is approximately: (a) 50 (b) 500 (c) 1,000 (d) 10,000 (e) 50,000
8. The cost of a legal abortion in the Eastern European Communist countries today is approximately: (a) \$1,000 (b) \$600. (c) \$300 (d) \$50 (e) \$2.

Exhibit C1 (cont'd.)

9. In the United States today, the approximate ratio of abortions to births is estimated by competent authorities to approximate:
(a) 1:2 (b) 1:4 (c) 1:6 (d) 1:8 (e) 1:10.
10. United States' Authorities estimate that the percentage of self-induced abortion is approximately: (a) 5% (b) 10%
(c) 25% (d) 40% (e) 60%.

Exhibit C2

Abortion Questionnaire

The following questions concern the topic of abortion. Circle the choice which in your opinion, best answers the question. Please do not omit any items; "guess" at the best answer when in doubt.

1. Approximately how many abortions do you believe occur each year in the United States: (a) 50,000 (b) 200,000 (c) 500,000 (d) 700,000 (e) 1,500,000.
2. Approximately how many legal abortions do you believe occur each year in the United States: (a) 300,000 (b) 100,000 (c) 40,000 (d) 10,000 (e) 1,000.
3. Most abortions are performed on: (a) unmarried women (b) married women with children (c) married women without children (d) divorcees.
4. Medical authorities view abortion as a distinctly more difficult procedure after pregnancy has progressed through the: (a) fifth week (b) seventh week (c) ninth week (d) eleventh week (e) thirteenth week.
5. Which of the following countries has the most permissive abortion laws: (a) U S S R (b) Japan (c) Sweden (d) Norway (e) India.
6. Scientific studies of the consequences of medically performed abortion indicate that the percentage of women who experience serious physiological impairment from the experience is nearest to: (a) 80% (b) 60% (c) 40% (d) 20% (e) 5%.
7. The number of women in the United States who die annually as a consequence of our restrictive abortion laws is approximately: (a) 50 (b) 500 (c) 1,000 (d) 10,000 (e) 50,000.
8. The cost of a legal abortion in the Eastern European Communist countries today is approximately: (a) \$1,000 (b) \$600 (c) \$300 (d) \$50 (e) \$2.
9. In the United States today, the approximate ratio of abortions to births is estimated by competent authorities to approximate: (a) 1:3 (b) 1:5 (c) 1:7 (d) 1:10 (e) 1:15.
10. United States' authorities estimate that the percentage of self-induced abortion is approximately: (a) 5% (b) 10% (c) 25% (d) 40% (e) 60%.

Exhibit C2 (cont'd.)

11. Authorities estimate that the amount of money spent on illegal abortions each year is approximately: (a) \$1,000,000 (b) \$25,000,000 (c) \$100,000,000 (d) \$225,000,000 (e) \$350,000,000.
12. Of all criminal abortions, the percentage performed to terminate pregnancies in married women is estimated to be: (a) 80% (b) 60% (c) 40% (d) 25% (e) 10%.
13. In all 50 states, the abortion laws generally take the stance that an abortion can be granted: (a) under no circumstances (b) only if the woman's life is jeopardized by the course of the pregnancy (c) if the woman's life is jeopardized by the course of the pregnancy and/or she has been a victim of rape or incest (d) if the woman's life is jeopardized by the course of pregnancy and/or she is mentally incapable of raising the child (e) if the woman's life is jeopardized by the course of pregnancy and/or she has been a victim of rape or incest and/or she is mentally incapable of raising the child.
14. In the perspective of all major rackets in the U. S., criminal abortions are (a) first (b) second (c) third (d) fourth (e) fifth.
15. If the abortion laws of most states were strictly enforced, the number of persons--abortionists and patients--which would be prosecuted every year is estimated to be: (a) 50,000 (b) 500,000 (c) 1,000,000 (d) 2,000,000 (e) 3,000,000.
16. In performing a therapeutic abortion most physicians choose the method of: (a) cervical dilatation and curettage (b) special drugs (c) introduction of a caustic substance into the womb (d) using a bougie (e) physical exertion in the early stages of pregnancy.
17. Among separated, divorced, and widowed women of all ages the percentage of all conceptions terminating in abortion is estimated to be: (a) 10% (b) 25% (c) 40% (d) 60% (e) 80%.
18. In a survey of 60 leading hospitals across the country, the ratio of the number of abortions for private patients versus the number of abortions for ward patients was: (a) 2:1 (b) 4:1 (c) 6:1 (d) 8:1 (e) 10:1
19. The percentage of single U. S. women who terminate premarital pregnancy by abortion is estimated to be about: (a) 10% (b) 25% (c) 40% (d) 60% (e) 80%.

Exhibit C3 (cont'd.)

20. Of hospital abortions performed in New York City during 1960-1962, the ratio of the number of abortions performed on whites to the number of abortions performed on non-whites was: (a) 3:1 (b) 5:1 (c) 7:1 (d) 9:1 (e) 11:1.
21. The ratio of abortion deaths among white women versus the number of abortion deaths among non-white women is estimated to be: (a) 1:4 (b) 1:2 (c) 1:1 (d) 2:1 (e) 4:1.
22. Of the total number of U. S. abortions, the percentage of abortions, performed on Catholics (who constitute about 25% of the total United States population) is estimated to be: (a) 10% (b) 15% (c) 20% (d) 25% (e) 30%.
23. The number of hospital abortions performed annually today in contrast to the number performed 25 years ago has: (a) decreased by 40,000 (b) decreased by 20,000 (c) remained approximately the same (d) increased by 20,000 (e) increased by 40,000.
24. A recent authoritative survey of obstetricians and gynecologists throughout the country found that the percentage of responding physicians who admitted they referred patients to abortionists was about: (a) 5% (b) 10% (c) 15% (d) 20% (e) 25%.

Exhibit C3

Abortion Questionnaire

The following questions concern the topic of abortion. Circle the choice which in your opinion, best answers the question. Please do not omit any items; "guess" at the best answer when in doubt.*

1. Approximately how many abortions do you believe occur each year in the United States: (a) 50,000 (b) 200,000 (c) 500,000 (d) 700,000 (e) 1,500,000.
2. Approximately how many legal abortions do you believe occur each year in the United States: (a) 300,000 (b) 100,000 (c) 40,000 (d) 10,000 (e) 1,000.
3. Most abortions are performed on: (a) unmarried women (b) married women with children (c) married women without children (d) divorcees.
4. Medical authorities view abortion as a distinctly more difficult procedure after pregnancy has progressed through the: (a) fifth week (b) seventh week (c) ninth week (d) eleventh week (e) thirteenth week.
5. Which of the following countries has the most permissive abortion laws: (a) U S S R (b) Japan (c) Sweden (d) Norway (e) India.
6. Scientific studies of the consequences of medically performed abortion indicate that the percentage of women who experience serious physiological impairment from the experience is nearest to: (a) 80% (b) 60% (c) 40% (d) 20% (e) 5%.
7. The number of women in the United States who die annually as a consequence of our restrictive abortion laws is approximately: (a) 50 (b) 500 (c) 1,000 (d) 10,000 (e) 50,000.
8. The cost of a legal abortion in the Eastern European Communist countries today is approximately: (a) \$1,000 (b) \$600 (c) \$300 (d) \$50 (e) \$2.
9. In the United States today, the approximate ratio of abortions to births is estimated by competent authorities to approximate: (a) 1:3 (b) 1:5 (c) 1:7 (d) 1:10 (e) 1:15.
10. United States' authorities estimate that the percentage of self-induced abortion is approximately: (a) 5% (b) 10% (c) 25% (d) 40% (e) 60%.

*The correct response is underlined.

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