X-Sender: jal67@email.med.yale.edu
Date: Fri, 15 Aug 1997 13:47:28 -0400
To: fgg@asc.upenn.edu
From: Judith Long <judith.a.long@yale.edu>
Subject: Media and Medicine
Mime-Version: 1.0

>Dear Dr. Gebner,
>
>I am sorry that I have been so out of touch. After our meeting in
>Philadelphia, I moved and have been very busy settlings into my new job at
>Yale. I am writing to let you know that I am still interested in working
>with you on issues of health and television. When we met, you showed me
>some work you were doing for the Robert Wood Johnson Foundation. I am very
>interested in the project. At that time you had many statistics on
>alcohol, tobacco and illicit drug use in the media, but did not have the
>real world comparator figures. I think it would be very interesting to put
>that data together, and could probably be done relatively quickly. Have you
>already done the comparison? I also think that it could be written up for
>as an article for a medical journal. Is there someone else at the
>foundation who is planning to do this? As you may remember, I am presently
>a Robert Wood Johnson Clinical Scholar and as such feel I would be an
>appropriate collaborator.
>
>As you may recall, I knew when we met that I would be busy during the
>summer, but starting in September things should be clearing up. If you
>think there is promise for us working together, I could come down to
>Philadelphia to get oriented and then start work in New Haven. I will be
>away for the next two weeks getting married but after that would be excited
>to get going. My work number is 203-737-5357, my home is 203-469-8253 and
>my e-mail is judith.a.long@yale.edu. I hope we can work something out and
>collaborate on a project. If not, I had a fascinating time at lunch and
>was honored that you took the time to meet with me. Thank you. Judith Long
>
>

To: "Judith Long, M.D." <judith.a.long@yale.edu>
From: George Gerbner <GGerbner@pobox.asc.upenn.edu>
Subject: It's a deal
Cc:
Bcc:
X-Attachments:

Hi

Good luck to you and congratulations to the lucky man!

I am absolutely eager to collaborate with you. You would be my only MD collaborator and I hope you could contribute the real world comparative date, as well as of course co-author the report.

The RWJ report has been delivered and is undergoing their own PR-style editorial work. The basic report is available and I can send you by e-mail as an attachment (can you open that?)..

As to our own publication, once the RWJ report is released (about Sept. 17) I see no problem.

So let me know what you think and/or call me to discuss next steps, including a visit for face-to-face strategizing.

Here's my new title: .

George Gerbner
Bell Atlantic Professor of Telecommunication,
Temple University

X-Sender: jal67@email.med.yale.edu
Date: Fri, 15 May 1998 17:13:33 -0400
To: George Gerbner <GGerbner@pobox.asc.upenn.edu>
From: "Judith A. Long" <judith.a.long@yale.edu>
Subject: project
Mime-Version: 1.0
Status:

Dear George,

Let me update you. As you may recall, I honed down my analysis to focus just on prime-time television, all and main characters and compared the prevalence of television users of addictive substances to that of the United States. Also, to make sure that the balance of characters who were users was accurate I also compared the relative risk of being male to female, 18-34 to under 18, 18-34 to over 34, and white to minority. What I found was the prevalence of alcohol, tobacco and illicit drug use for all groups was far under the U.S. prevalence. In addition, I found that most of the confidence intervals around the relative risks included the U.S. relative risks (i.e. even though the prevalence was low, in general the balance of characters was accurate compared to the U.S.). The skewed relative risks that did exist were alcohol users were more often female, more often 18-34 than under 18, and more often white than minority compared to the U.S.. In regards to illicit drugs users they were more often minorities and in regards to tobacco users they were more often over 34 than 18-34 years old. Therefor, my analysis shows that users of addictive substances are seen much less on prime-time television than is prevalent in the U.S. population, and that for the most part the balance of types of users is accurate, with the most concerning exception being that minorities are over represented as illicit drug users compared to whites.

For a paper I think there will be opportunity for an interesting discussion, but presently I am trying to write an abstract for the RWJ meeting. In the abstract I have to summarize everything into one or two paragraphs including introduction, method, results and conclusions. At present I am having some difficulty situating the abstract. Do you have any suggestions. I am attaching a very rough draft of the abstract. These are not the results I expected, but I have to be honest about the data. Perhaps you can help me put a different spin on things. Judith

p.s. I know you have had difficulty opening up files I have sent in the past so this time I am sending this in two forms one is a version for mac and one is an older version of word. (I can not remeber if you are on Mac or not) If this does not work I will fax you the abstract. Judith
Content-Type: application/octet-stream; name="abstact7.mcw"
Content-Disposition: attachment; filename="abstact7.mcw"


abstact7.mcw

abstact7.1.doc

Date: Sun, 17 May 1998 03:07:04 -0400 (EDT)
Mime-Version: 1.0
To: judith.a.long@yale.edu
From: Brian Linson <cemad@libertynet.org>
Subject: Couldn't open files
Cc: ggerbner@nimbus.ocis.temple.edu
Status:

The .doc version opened fine, showing 1 letter, "T".

hmmm... you want to dump it into an email?

And by the way, is it you IBM's fault for not knowing
how to make mac-readable files, or our Macs' fault for
not opening your perfectly good IBM files.

Brian Linson, Research Associate
Cultural Indicators Research Project
Annenberg Hall, Room 218
Temple University, Philadelphia

tel. (215) 727-3121
fax (215) 204-5823
email cemad@libertynet.org

To: Brian Linson <cemad@libertynet.org>
From: George Gerbner <ggerbner@nimbus.temple.edu>
Subject: Re: project
Cc:
Bcc:
X-Attachments:

>X-Sender: jal67@email.med.yale.edu
>Mime-Version: 1.0
>Date: Sun, 17 May 1998 14:22:37 -0400
>To: George Gerbner <ggerbner@nimbus.ocis.temple.edu>
>From: "Judith A. Long" <judith.a.long@yale.edu>
>Subject: Re: project
>Status:
>
>Dear George,
>
>Here are the responses to your questions.
>
>1. When you asked about risk of what, I am referring to the risk of being a
>female user compared to a male user, or the risk of being a minority
>compared to being white. For example we know that there are less minorities
>who use illicit drugs on television than in real life, but when you look at
>all the users of illicit drugs on prime-time television there is a greater
>chance of being a minority compared to being a white than in real life.
>Thus, although television may not actually show us many illicit drug users,
>when they do show them to us, they are more likely to be minorities than one
>would expect from US demographics, The balance is skewed.
>
>2. When you talk about the analysis being one of a plot analysis, I thought
>that was what you were doing? From the beginning, I had planned to do a
>character analysis and that is what I did. I thought the analysis of plots
>and the consequences of characters who use addictive substances was the
>basis of your JAMA piece. My primary question has always been, at the level
>of the character, in regards to prevalence of use, how does television
>compare to the prevalence of use in the united states? It is this analysis
>that I am hoping to present at the RWJ meetings.
>
>3. When I talk about alcohol users being more frequently seen as female
>than male than one finds in the US population I am again writing about the
>relative risk. This is a comparisons of percents. For example if in the
>US 60% of men drink alcohol and only 30% of women do then the relative risk
>of being a male drinker compared to a female drinker is 60/30 = 2.0. Now,
>if on television only 20% of men drink but 20% of women drink also then on
>television the relative risk of being a male drinker compared to a female
>drinker is 20/20= 1.0. If the confidence interval around 1.0 does not
>include 2.0 then I would claim that compared to the U.S. population
>television would be over representing the likelihood of being a female
>drinker compared to a male drinker.
>
>Below is the rough draft of my abstract. Should I fax you the tables that
>include all my results. I don't think I can include them in the body of an
>e-mail. Judith
>
>
>RATES OF ALCOHOL, ILLICIT DRUG, AND TOBACCO USE ON PRIME-TIME TELEVISION
>COMPARED TO THE POPULATION OF THE UNITED STATES.
> There is great public concern regarding the use of alcohol, illicit drugs
>and tobacco and that television glamorizes all three. Behavior theory

>states that behavior and attitudes are influenced by observations through
>context and quantity. Television is thought to influence us through both
>mechanisms. At present, virtually no studies of television content evaluate
>whether television over represent users of addictive substances compared to
>the U.S. population. In this study, we compare the prevalence of alcohol,
>illicit drugs, and tobacco use among prime-time television characters with
>the U.S. population. During 1995 and 1996 addictive substance use for 4,904
>dramatic, prime-time television characters was cataloged during four sample
>weeks. Characters were assigned a category for sex, age, and race based on
>their appearance; those with roles essential to the plot were considered
>main characters. Estimates of alcohol, illicit drug, and tobacco use in the
>U.S. population were based on the 1996 National Household Survey on Drug
>Abuse (n=18,269 people), conducted by the Substance Abuse and Mental Health
>Service Administration. Rates of use of addictive substances on television
>were compared to the U.S. population in categories of sex, age and race. In
>addition, to assess whether groups were "over" or "under" represented as
>users, we calculated the relative risk of being male versus female, 18-34
>years old versus under 18 years old, o18-34 years old versus over 34 years
>old, or a white versus a minority user.
> We found that alcohol, illicit drug, and tobacco use was consistently
>under represented on television. Although the prevalence of use did
>increase in the analysis of main characters, no confidence interval around
>the observed prevalence of users on television included the U.S. rates of
>use. The closest rate compared to the U.S. was for alcohol drinking in main
>characters over 34 years old (34.6%, 95% CI 26.0-32.5, U.S. prevalence
>51.7%), and the furthest was for tobacco use in all characters 18-34 years
>old (1.7%, 95% CI 1.0-2.3, U.S. prevalence 36.5%). In the relative risk
>analysis, compared to the U.S., we found that alcohol drinkers were less
>likely to be male than female (RR 1.1, 95% CI 0.9-1.2, U.S. RR 1.4), more
>likely to be 18 years old than under 18 years old (6.7, 95% CI 4.1-11.0, U.S
>RR 3.2), and more likely to be a white than a minority (2.3, 95% CI 1.8-3.0,
>U.S RR 1.3). For illicit drug users, they were less likely to be a white
>than a minority (0.4, 95% CI 0.2-0.7, U.S RR1.0). Finally, tobacco users
>were less likely to be 18-34 years old than over 34 years old (0.5, 95% CI
>0.3-0.7, U.S RR 1.4). In general though, most confidence intervals included
>the U.S. RR. In conclusion, alcohol, illicit drug and tobacco users are
>seen much less frequently on prime time television than is prevalent in the
>U.S. population. In addition, the only relative risk that would be
>considered to be confirming preconceived prejudices was for minorities
>compared to whites who were shown as heavier illicit drug users than
>compared to the U.S. population. Although attention should be paid to not
>distorting the balance of characters using addictive substances, the actual
>number of users on television is already much lower than is prevalent in our
>society. Therefor, it is difficult to argue that television is adversely
>effecting behavior and attitudes towards addictive substances through an
>overabundance of skewed images.
>
>
>
>
>
> At 11:58 PM 5/15/98 -0400, you wrote:
>>Dear Judith:
>>
>>Not only could I not open your attachments, but every time I tried it
>>bombed, and I had to re-start (THREE TIMES!0; a lethal message! Please send
>>abstract as text.
>>
>>

>>I AM FORWARDING THIS TO BRIAN FOR HIS COMMENT TO ME; WILL FORWARD TO YOU
>>EARLY NEXT WEEK (AM LEAVING FOR TORONTO)
>>
>>:
>>>
>>>Let me update you. As you may recall, I honed down my analysis to focus
>>>just on prime-time television, all and main characters and compared the
>>>prevalence of television users of addictive substances to that of the
>>>United States. Also, to make sure that the balance of characters who were
>>>users was accurate I also compared the relative risk
>>
>>RISK OF WHAT? OF BEING A USER? OR RISK OF CONSEQUENCES? NOT CLEAR. YOU MAY
>>RECALL THAT OUR CONTENTION WAS THAT SUBSTANCE USE WAS PRESENTED AS
>>RELATIVELY RISK-FREE
>>
>> of being male to
>>>female, 18-34 to under 18, 18-34 to over 34, and white to minority. What I
>>>found was the prevalence of alcohol, tobacco and illicit drug use for all
>>
>>YOU MEAN PER CAPITA? I.E. PERCENT OF TV CHARACTER USERS COMPARED WITH US
>>POPULATION? BUT REMEMBER THAT ON TV WE ARE TALKING ABOUT STORIES AND PLOTS,
>>NOT LIFE. THAT MEANS THAT COMPARISON SHUOULD BE MADE WITH OTHER PLOT
>>ELEMENTS. SO IF ALCOHOL SCENE OCCURRS 2.1 TIMES PER PRIME TIME HOUR (I
>>THINK THAT'S THE RIGHT FIGURE) HOW DOES THAT COMPARE TO DRINKING WATER OR
>>SOFT DRINKS? THAT RATION CAN THAN BE COMPARED TO THE REAL LIFE RATIO. IF I
>>REMEMBER CORRECTLY, TV CHARACTERS DRINK ALCOHOL MORE THAN ALL OTHER
>>BEVERAGES COMBINED! THAT WOULD BE THE APPROPRIATE COMPARISON.
>> .
>>>groups was far under the U.S. prevalence. In addition, I found that most
>>>of the confidence intervals around the relative risks included the U.S.
>>>relative risks (i.e. even though the prevalence was low, in general the
>>>balance of characters was accurate compared to the U.S.). The skewed
>>>relative risks that did exist were alcohol users were more often female,
>>>more often 18-34 than under 18, and more often white than minority compared
>>>to the U.S..
>>
>>MORE OFTEN OR GREATER PERCENTAGES? CANNOT USE ABSOLUTE NUMBERS COMPARISONS
>>WITH DIFFERENT TOTAL POPULATIONS.
>>
>> In regards to illicit drugs users they were more often
>>>minorities and in regards to tobacco users they were more often over 34
>>>than 18-34 years old. Therefor, my analysis shows that users of addictive
>>>substances are seen much less on prime-time television than is prevalent in
>>>the U.S. population, and that for the most part the balance of types of
>>>users is accurate, with the most concerning exception being that minorities
>>>are over represented as illicit drug users compared to whites.
>>
>>LET US CHECK THIS OUT.
>>
>>>
>>>For a paper I think there will be opportunity for an interesting
>>>discussion, but presently I am trying to write an abstract for the RWJ
>>>meeting. In the abstract I have to summarize everything into one or two
>>>paragraphs including introduction, method, results and conclusions. At
>>>present I am having some difficulty situating the abstract. Do you have
>>>any suggestions. I am attaching a very rough draft of the abstract. These
>>>are not the results I expected, but I have to be honest about the data.
>>>Perhaps you can help me put a different spin on things. Judith
>>>

>>PLEASE SEND ABSTRACT AS TEXT. I THINK ALL OF THIS NEEDS MORE WORK
>>
>>>p.s. I know you have had difficulty opening up files I have sent in the
>>>past so this time I am sending this in two forms one is a version for mac
>>>and one is an older version of word. (I can not remeber if you are on Mac
>>>or not) If this does not work I will fax you the abstract. Judith
>>>Content-Type: application/octet-stream; name="abstact7.mcw"
>>>Content-Disposition: attachment; filename="abstact7.mcw"
>>>
>>I AM ON MAC BUT STILL COULD NOT OPEN, AND IT BOMBED!
>>
>>AM LEAVINBG FOR TORONTO ENGAGEMENT, BACK SUNDAY NIGHT. MEANWHILE I HOP TO
>>GET MORE INF FROM BRIAN, WHICH I WILL WORK ON AND FORWARD ASAP.
>>
>>>Attachment converted: Hard Disk:abstact7.mcw (????/----) (000042D5)
>>>Attachment converted: Hard Disk:abstact7.1.doc (WDBN/MSWD) (000042D6)
>>
>>
>>
>>George Gerbner
>>Bell Atlantic Professor of Telecommunication
>>Temple University, Philadelphia. Tel/fax 610 642 3061
>>E-mail:ggerbner@nimbus.temple.edu
>>
>>
>>
>>
>>
>>

Date: Mon, 18 May 1998 14:41:27 -0400 (EDT)
Mime-Version: 1.0
To: George Gerbner <ggerbner@nimbus.ocis.temple.edu>
From: Brian Linson <cemad@libertynet.org>
Subject: Re: Re-sent; please respond
Status:

>Brian -- see my initial response in another message. Please check and let
>me know what you find and think.Also, can you open the attachments? For me
>the Mac attachment bombed three times! g
>
>

Dr. Gerbner,

Here is some questions I had for Judith:

Judith, do these data account for the disparity of the TV population compared with the US population. For instance the over=representation of white females from 25-40 and males from 25-60? (That's the easy question)

I'd like to address what seems to be contrary conclusions.

If a one hour show has 40 characters and 3 drink alcohol, there are two ways of describing this data. One is that an alcoholic drink every 20 minutes is overrepresentation. Another is that 7.5% drinkers is underrepesentation.

I think your US data is taken from a kind of "lifetime response" (DO YOU DRINK ALCOHOL) But in the 1995-1996 TV sample, we are seeing 4,000 people for parts of their lives. Practically none of them are on the screen for an hour in total. We have 80 hours looking into discrete life-moments of 4,000 people. And in those moments a large number of them drank alcohol. Certainly you'd have to follow me around for a long time before you filmed a scene of my drinking, but I still count as a "casual" drinker. So before I talk more about comparing prevalance, maybe you can answer if I have the right idea.

Maybe Dr. Gerbner can forward you, or I can, a copy of our journal article.

FROM JUDITH's CONCLUSION:

>In conclusion, alcohol, illicit drug and tobacco users are
>seen much less frequently on prime time television than is prevalent in the
>U.S. population. In addition, the only relative risk that would be
>considered to be confirming preconceived prejudices was for minorities
>compared to whites who were shown as heavier illicit drug users than
>compared to the U.S. population. Although attention should be paid to not
>distorting the balance of characters using addictive substances, the actual
>number of users on television is already much lower than is prevalent in our
>society. Therefor, it is difficult to argue that television is adversely
>effecting behavior and attitudes towards addictive substances through an
>overabundance of skewed images.

Date: Mon, 18 May 1998 14:47:14 -0400 (EDT)
Mime-Version: 1.0
To: George Gerbner <ggerbner@nimbus.ocis.temple.edu>
From: Brian Linson <cemad@libertynet.org>
Subject: Re: Re-sent; please respond
Status:

>Brian -- see my initial response in another message. Please check and let
>me know what you find and think.Also, can you open the attachments? For me
>the Mac attachment bombed three times! g
>
>

Dr. Gerbner,

what follows is my questions, and dr long's answers.
My questions are preceded by a ">"

Dear Brian, below are the responses to your questions.

At 09:54 AM 5/18/98 -0400, you wrote:
>
>Judith, do these data account for the disparity of the TV population
>compared with the US population. For instance the over=representation of
>white females from 25-40 and males from 25-60? (That's the easy question)

Yes, these are comparisons to the U.S. population. As straight prevalence everyone is under represented (i.e. more women drink in the U.S. than on television). The analysis of relative risks is an analysis of percents. For example if 60% of american men drink and 30% of american women drink then the relative risk of being a male to female drinker in the U.S. is 60/30 = 2.0/ Now, if on T.V. 20% of male characters drink and 20% of female characters drink the relative risk of being a male drinker to a female drinker on T.V. is 20/20 = 1.0. If the confidence interval around this estimate of 1.0 does not include 2.0, then I would claim, that even though the prevalence of drinking on t.v. is lower than the prevalence of drinking in the U.S., the relative risk of being a female drinker than being a male drinker is higher on t.v. than in the U.S.. That is although you do not see many drinkers, when you do see them, compared to the U.S., women are "over represented".
>
>I'd like to address what seems to be contrary conclusions.
>
>If a one hour show has 40 characters and 3 drink alcohol, there are two
>ways of describing this data. One is that an alcoholic drink every 20
>minutes is overrepresentation. Another is that 7.5% drinkers is
>underrepesentation.

When I proposed this project to George, I stated that this was an analysis of characters. I always thought the analysis of situations and consequences was your main analysis for JAMA. This has always been an ancillary character analysis. Of course in the discussion of the paper and in the abstract presentation, there will be opportunity to discuss different ways of thinking about this data but there is not any room to make this point in the written abstract for the meeting. Also I assumed this is/was part of your JAMA piece. I was just trying to add something different.

>
>I think your US data is taken from a kind of "lifetime response" (DO YOU
>DRINK ALCOHOL) But in the 1995-1996 TV sample, we are seeing 4,000 people
>for parts of their lives. Practically none of them are on the screen for
>an hour in total. We have 80 hours looking into discrete life-moments of
>4,000 people. And in those moments a large number of them drank alcohol.
>Certainly you'd have to follow me around for a long time before you filmed
>a scene of my drinking, but I still count as a "casual" drinker. So before
>I talk more about comparing prevalance, maybe you can answer if I have the
>right idea.

I recognize that these are discrete life moments, thus I used data on addictive substance use in the last month for the U.S. comparison. The comparison is not based on lifetime reports of use. This is the best comparison I could come up with and I recognize that these comparisons may not be exactly comparable. In addition, my feeling about television is that the issue is what you are shown. Thus, if you never see a character drinking on television one can not then claim that person is a positive or negative role model in regards to drinking.

Brian Linson, Research Associate tel. (215) 727-3121
Cultural Indicators Research Project fax (215) 204-5823
Annenberg Hall, Room 218 email cemad@libertynet.org
Temple University, Philadelphia

To: Brian Linson <cemad@libertynet.org>
From: George Gerbner <ggerbner@nimbus.temple.edu>
Subject: Judith Long's abstract
Cc:
Bcc:
X-Attachments:

Brian-
I did some tinkering with this abstract, below. Can you check and complete the draft, and return to me so we can send it back to Judith?

g

Dear George,

Here is the abstract as it presently stands. As I said, this is only the abstract but I will be able to address many more issues in the presentation and in the actual paper.

In addition, I discussed the issues of authors with my main mentor here and he felt that one of the RWJ faculty should be senior author on the abstract (since these are the RWJ meetings). This is only for the abstract and not necessarily for the paper when we write it. Since this is your data, I will leave the final decisions about author position for the abstract and the paper up to you. Would you like to be second, third or last author on the abstract?

My mentor here, John Concato said he would be happy to discuss the issue with you if you would like.

I need to send out the abstract this coming week, so please get back to me as soon as you can. In regards to additional analysis for either the presentation or the final paper, the meetings are not until November so we do have time to address the data in different ways.

Judith

PRIME-TIME TELEVISION VS. U.S RATES OF USE FOR ALCOHOL, ILLICIT DRUGS, AND TOBACCO.

Concerns have been raised that television "glamorizes" the use of alcohol, illicit drugs, and tobacco. According to behavior theory, the context and quantity of observations affects attitudes and habits, and that television (T.V.) can exerts an influence through both means. This study compares the prevalence of alcohol, illicit drug, and tobacco users among prime-time T.V. characters to the prevalence of users in the U.S. population. The data come from a prior study designed to analyze T.V. "messages" regarding addictive substances. During 1995 and 1996, for 4 sample viewing weeks, the study catalogued alcohol, illicit drug, and tobacco use for 4,904 dramatic, prime-time T.V. characters, and for 797 "major" characters, according to gender, age, and race. For comparative control we used analogous rates for the U.S. population, obtained from the 1996 National Household Survey on Drug Abuse. Finally, we compared the ratio of the percent of users in T.V. characters and in the U.S. population for subgroups of males vs. females, whites vs. minorities, and those who were age 18-34 vs. under 18 or over 34.

It must be emphasized that the frequency of actions of characters in fiction and drama are not comparable to the frequency of actions during the lifetime of real-life persons. Drinking and other drug use in story-telling are acts of characterization, not just as casual or random lifetime events. Drinking defines character and scene. A dramatic character who does not drink in any scene can be assumed to be a non-drinker. If characters who drink tend to be successful in the plays, one can assume (and our research shows) that drinking is associated with success. Furthermore, the power of fiction, unlike life, is that one soon learns the outcome. Therefore, happy, risk-free drinking, etc., shows that the action has no serious or lasting consequences.

Thus the 44.1 percent of programs presenting characters who drink can be seen as equivalent to nearly half of all lifetime hours in the presence of a drinker -- a vast overrepresentation.

[Brian: can we find a comparison of characters? This is as far as I got. See what more you can do.]]

characters presented as using alcohol, illicit drugs, and tobacco on television were consistently under-represented on T.V.. Although the prevalence of users was higher among main characters than all characters combined, none of the 95% confidence intervals (CI) around the observed prevalence included the U.S. rates. The percentages in the table below show the total rates of addictive substance users in the U.S. and on prime-time T.V..

<underline>Substance</underline> (N=797)	<underline>U.S.</underline>	<underline>Main Characters (N=18,269)	<underline>All Characters</underline> (N=4904)
Alcohol	51%	11%	29%
Illicit drugs	6%	1%	2%
Tobacco	29%	3%	5%

When compared with the general population, alcohol users on T.V. were less likely to be males than females, more likely to be age 18-34 than under 18, and more likely to be white than minority. For illicit drug users, the T.V. characters were less likely to be white than minority, and the tobacco users were less likely to be age 18-34 than over 34.

This study of quantitative counts of persons does not include the qualitative impact of T.V. images, which may also introduce viewers to alcohol, illicit drug, and tobacco users for the first time. Nevertheless, the quantitative results show that addictive substance users had a prevalence much lower on prime-time T.V. than in the U.S. population.

TEMPLE UNIVERSITY **School of Communications and Theater**
A Commonwealth University

George Gerbner
Bell Atlantic Professor of Telecommunications

Annenberg Hall, Rm. 06 (011-00)
Philadelphia, Pennsylvania 19122
Voice/Fax: 610-642-3061
E-mail: ggerbner@nimbus.temple.edu

February 9, 1999

Judith Long, M.D.
Via Fax 203 785 3461
judith.a.long@yale.edu

Dear Judith:

I am faxing pages 5 and 7 of our manuscript, with these comments.

On page 5, please insert:

Our data confirm these figures.

The insert on page 7 should read:

analyzed separately but are

Also on page 7 , for the last sentence (If the observer, etc.) please substitute:

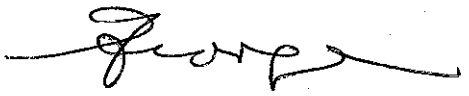
Missing values were recorded for a small proportion of characters who are not human (animals, fantasy characters, etc.)

On acknowledgments, I would appreciate your noting that Brian Linson, Research Director of the Cultural Indicators Project, supervised the coding of TV programs.

Also: The authors wish to thank the Robert Wood Johnson Foundation for its support of the research reported in this paper.

Please send me an electronic copy (attachment) of the final draft, and keep me posted on our progress toward publication.

Sincerely yours:



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From: George Gerbner <ggerbner@nimbus.temple.edu>
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Brian - please review and comment. g

>Date: Fri, 11 Jun 1999 15:34:10 -0400
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>To: George Gerbner <ggerbner@nimbus.ocis.temple.edu>
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>
>Dear George,
>
>Here is a slightly modified version of the paper. We were thinking of
>sending it to the New England Journal of Medicine. Please let me know what
>you think about both the new version and sending it to the NEW England
>Journal. If you are in agreement I will sign your name again and send it
>out. Thank You Judith
>
>USE OF ALCOHOL, ILLICIT DRUGS, AND TOBACCO AMONG CHARACTERS ON PRIME-TIME
>TELEVISION
>
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>ABSTRACT
>

>Background Previous research of addictive substances suggests that use of
>alcohol, illicit drugs, and tobacco is over-represented on prime-time
>television (TV). These studies, however, have relied on frequency counts
>of the substance, rather than the prevalence of use among TV characters.
>Methods We compared the prevalence of alcohol, illicit drug, and tobacco
>users among characters on prime-time TV during 1995 and 1996 with rates of
>use in the United States (U.S.). In addition, we determined if the ratio
>of male to female, young to old, and white to minority addictive substance
>users on prime-time TV were similar to the equivalent U.S. ratios.
>Results The prevalence of addictive substance users on prime-time TV was
>lower than the prevalence of users in the U.S. Comparing results for the
>U.S. vs. prime-time TV characters (respectively), 51.0% drank alcohol
>versus 11.0% (99% C.I., 9.8-12.1), 6.1% used illicit drugs versus 0.8% (99%
>C.I., 0.5-1.1), and 28.9% smoked tobacco versus 2.5% (99% C.I., 2.0-3.1).
>In addition, no consistent pattern was evident in our analyses that
>assessed whether addictive substance users on prime-time TV were more
>frequently represented as men, young, or minority compared to the similar
>U.S. ratio.
>Conclusions Contrary to prevailing beliefs, alcohol, illicit drug, and
>tobacco users are uncommon on prime-time TV and less prevalent than in the
>U.S. population.
>
>Key Words.- Television, alcohol, illicit drugs, tobacco
>
>
>INTRODUCTION:
>Alcohol, tobacco, and illicit drug use cause many health problems, and
>concern exists regarding external factors that influence addictive
>substance use1. In particular, much attention has been given to the role
>that television (TV) may have in promoting the use of alcohol, illicit
>drugs, and tobacco2,3,4. For example, behavior theory suggests that TV
>exerts an influence on behavior through the portrayal of use (context) and
>repetitive exposure to addictive substances and their users (quantity)2,5.
>Thus, TV is believed to both "glamorize" use6 and to provide an
>overabundance of images.
>
>Although the content of programming changes with time, research regarding
>TV and addictive substances spans three decades and supports theses
>concerns. For example, previous qualitative research has found that TV was
>the most common mechanism by which adolescents first hear about drugs7, and
>users of alcohol and tobacco on TV are frequently role models8. Despite
>these "exposures", the consequences of alcohol and tobacco use are rarely
>exhibited or discussed on TV9,10,11,12.
>
>Previous quantitative research also seems to support the assumption that
>there are too many images of addictive substances on TV. Characters on TV
>were found to drink alcohol more frequently than non-alcoholic
>beverages13,14; scenes in which an alcoholic beverage is present occur
>almost every 10-15 minutes; and tobacco events are shown almost every
>hour8,15,16. The conclusions drawn from these studies have been that
>alcohol and tobacco are shown frequently on TV, and that TV over-represents
>use in real life. Yet these studies focus on the presence of the substance
>alone, however, rather than the characters who use addictive substances.
>The actual prevalence of characters that use addictive substances has not
>been previously studied or compared to the general population.
>
>The purpose of this study is to determine the prevalence of alcohol,
>tobacco, and illicit drugs use among prime-time TV characters and compare
>it with the prevalence of use in the United States (U.S.). In addition, we

>wanted to ascertain if ratios of users based on age, sex, and race on
>prime-time TV were similar to the same ratios in the U.S. Considering the
>previous literature, our hypotheses were that compared to the U.S.
>population, the prevalence of alcohol, illicit drug, and tobacco users on
>prime-time TV are higher overall, and are exaggerated for men, younger age
>groups, and minorities.
>
>METHODS:
>We compared the use of alcohol, illicit drug, and tobacco users by
>characters on prime-time TV with corresponding use in the U.S. population.
>(Throughout the paper we employ the term use rather than abuse since we did
>not quantify the amount used or the health consequences of use by TV
>characters).
>Data for TV
>The TV data describing the use of the three types of addictive substances
>(alcohol, illicit drugs, and tobacco) come from an existing database
>designed to analyze TV messages regarding addictive substances -- the
>Cultural Indicators Research Project17. The data includes counts of
>characters from four sample viewing weeks during the 1995 and 1996
>prime-time seasons. All fictional programs on the four major broadcast
>networks (ABC, CBS, FOX, NBC) that aired Eastern Standard Time between 8:00
>p.m. and 11:00 p.m. on Monday through Saturday, and 7:00 p.m. and 11:00
>p.m. on Sunday, were recorded and catalogued. We chose to focus on
>prime-time, non-cable TV since it typically commands the largest viewing
>audience. Commercials, news shows, and reality shows were analyzed
>separately but are not included in this analysis.
>
>The analysis for the current research focuses on the prevalence of users
>and their characteristics. All characters within an episode were coded as
>"main" or "minor" parts: main characters are those characters portraying
>roles essential to the plot; minor characters are all other characters with
>speaking parts. In addition, the gender, approximate age, and race of the
>characters were recorded. If the observer was unable to determine the sex,
>age or race of a character, or if the character was not human (e.g. animals
>or fantasy characters) the information was classified as missing. A
>character was designated a user of alcohol, tobacco, or illicit drugs if
>she/he was observed using or holding the substance, or if the dialogue
>indicated they had been using. Illicit drugs were defined as addictive
>drugs that are illegal to use in the U.S. and do not include the abuse of
>prescription drugs.
>
>Research assistants observing the programs ("coders") received four-weeks
>of training which consisted of instruction, practice, and testing. The
>data generated by the coders in the training program is subjected to
>reliability analysis. On the basis of these results, instruction and items
>to be coded are further discussed and, if necessary, revised, and coder
>trainee evaluated. In pre-testing, items used in the instrument show > 90%
>agreement between two independent coders. The coders who successfully
>complete this testing process proceed to analyze the final sample of
>programming. In addition, a supervisor reviewed all code sheets for
>internal consistency regarding a number of redundant items. The instrument
>for recording data includes categories for the presentation of alcohol,
>illicit drugs, and tobacco, as well as for the demography of characters.
>
>Data for U.S. Population
>Data on the prevalence of alcohol, illicit drug, and tobacco use comes from
>the 1996 National Household Survey on Drug Abuse (NHSDA), an annual
>face-to-face survey designed to measure addictive substance use in U.S.
>population18. It is widely considered one of the best sources of