Quality, objectivity, and tone in media portrayals of care for older adults

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Quality, Objectivity, and Tone in Media Portrayals of Care for Older Adults

by

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Abstract

In response to the growing population of older adults who will need assistance to care for themselves, this research evaluates media coverage of care options for older adults presented in local newspapers, an informational resource used by baby boomers and older generations interested in planning for their futures and caring for their loved ones. Computer databases for four newspapers representing the Capital Region of New York State were scanned for keywords to identify articles about older adult care, then articles were reviewed to ensure they were relevant to older adult care. A quantitative content analysis was performed on the articles using an instrument that measured their quality, objectivity, and tone. The instrument further screened the articles to ensure older adult care was a focus of each (N = 284). Results indicate that media presents older adult care topics with quality information, but the objectivity and tone of articles varies by topic. Articles about healthcare costs, the social experiences of older adults, and community living arrangements are typically reported using many different sources for information, leading to high objectivity, while articles about healthcare systems, at risk elders, and institutional living arrangements are typically reported with significantly fewer sources of information, leading to low objectivity. Many articles leave the reader without any strong impression about older adult care, but many have a negative tone, leaving the reader with a bad impression of care, especially articles about nursing homes and at risk elders. This study found more negative tone articles than previous research, which may indicate a rising concern about older adult care among baby boomers and their aging loved ones. Further, the majority of articles were about institutional living arrangements, particularly nursing homes. However, this is not representative of the experiences and desires of most
older adults, who live in a community setting, but may indicate that society is expectant of entering a nursing home in older adulthood. Local newspapers could improve their service to readers by presenting more articles about community living arrangements for older adults, and elder care services available for older adults and their caregivers in the community.
Chapter 1.

Statement of Problem

Demographers report that the number of persons 65 and over in 2000 was 11 times greater than in 1900, comprising 12.4% of the total U.S. population (He, Sengupta, Velkoff, & DeBarros, 2005). In 2010, the number of persons 65 and over was 13 times greater than in 1900 and comprised 13% of the total U.S. population (calculation based on data from Werner, 2011). Beginning in 2011, the movement of the baby boomers into old age, coupled with the increases in life expectancy over the past century, which are expected to continue, will bring the 65 and older age group to 20% of the U.S. population by 2030 (He et al., 2005).

In the United States, New York State has the third highest population of persons 65 years and older (Werner, 2011), and is one of the nine states in the country that contains over half of the 65 and older population (calculation based on data from Werner, 2011). In 2000, the proportion of elderly (the number of elderly out of the total population) in New York State was 12.9%, higher than the national average of 12.4% (Hetzel & Smith, 2001). In 2010, the proportion of elderly in New York State was 13.5%, exceeding the national level of 13% (Werner, 2011). In New York State’s Capital Region, which houses the State Capital and is comprised of Albany, Rensselaer, Saratoga, and Schenectady counties, the proportion of older adults was 13.9% in 2000 and 14.0% in 2010, which is consistently higher than the 12.9% and 13.5% (respectively) found across the whole of New York State (see Table 1).
Starting in 2001, the baby boom generation (persons born between 1946 and 1964) began entering pre-retirement age, 55 years old. This transition brings concerns about caregiving, long term care, and living arrangements for the baby boomers as they age, and for older generations, such as the parents of baby boomers, who may already need caregiving or an alternative to living home alone. Advancing age brings chronic conditions that strain a person’s finances, affect their ability to care for themselves, and can develop into a disability, which often results in a loss of independence that causes a person to need in-home care, or to move to a place where he or she can be cared for by others (Administration on Aging, 2006; He et al., 2005; National Center for Health Statistics, 2005). Thirty-nine percent of adults 65 and older in New York State reported having a disability in 2005 (Houser, Fox-Grage, & Gibson, 2006), 45% of adults 65 and older in a 2009-2010 national survey reported having two or more chronic conditions (Freid, Bernstein, & Bush, 2012), and over 90% of noninstitutionalized older adults

Table 1. Proportion of older adults per New York State location, 2000 and 2010

<table>
<thead>
<tr>
<th>Location</th>
<th>Population 2000</th>
<th>Population 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All ages</td>
<td>Number</td>
</tr>
<tr>
<td>New York State</td>
<td>18,976,457</td>
<td>2,448,352</td>
</tr>
<tr>
<td>Albany County</td>
<td>294,565</td>
<td>42,594</td>
</tr>
<tr>
<td>Rensselaer County</td>
<td>152,538</td>
<td>20,682</td>
</tr>
<tr>
<td>Saratoga County</td>
<td>200,635</td>
<td>22,984</td>
</tr>
<tr>
<td>Schenectady County</td>
<td>146,555</td>
<td>24,398</td>
</tr>
<tr>
<td>Capital Region</td>
<td>794,293</td>
<td>110,658</td>
</tr>
</tbody>
</table>

(those living in the community) that have a chronic disability, receive care informally (from family or friends) or formally (from a service provider agency) (Administration on Aging, 2006). Eighty-nine percent of those living in a nursing home also require assistance to meet their daily needs (He et al., 2005).

Due to the demographic changes that will be occurring in the coming years (an increasing number of persons entering old age, and living longer as an older adult), more aging services, and funding for these services, need to be in place to sustain this population. Demographers anticipate this to be a social and economic concern for policymakers, health care agents, and potential caregivers and care receivers (He et al., 2005; Lawson & Kisella, 1997).

Having one of the highest populations of elderly residents, New York State is in a position to be a leader for the rest of the country regarding elder care. Policies regarding such care will come from the State Capital, with information about programs, institutions, services, policies, and public opinion transmitted through the media, specifically local newspapers, which are the best source for news coverage directly relevant to the community (Project for Excellence in Journalism, 2006; Rosenstiel, Mitchell, Purcell, & Rainie, 2011). For the baby boomers and their parents (people born in 1964 and earlier), information about community resources and issues surrounding caregiving and long term care come through local media, interpersonal discussion, and personal experience. A national telephone survey by Kaiser Family Foundation in 2001 of 1,309 people ages 18 and older, which included an oversampling of those 45 and older, revealed that 60% of respondents were exposed to a news story in the media about nursing homes, and 44%
were exposed to a news story in the media about assisted living during the past year (Brodie & Blendon, 2001).

Given this background, the purpose of this study is to examine articles in local newspapers of the Capital Region to identify topics about care for older adults that are presented in the articles; to assess the quality of this information; to assess the objectivity of this information; to evaluate the impression of older adult care that these articles convey; and to determine if changes in newspaper coverage have occurred as more baby boomers have entered the 55 and older age group. The importance of this study lies in the need for people to be empowered to make informed decisions for themselves and their loved ones [about who will care for them and where this care will be provided] if they are no longer able to care for themselves. Based on the premise that media informs public knowledge, this study will identify what information about older adult care is provided to people who read these articles (and subsequently to those whom the reader passes this information), and how that information is conveyed, as a point for journalists, social workers, politicians, and health care providers to intervene and provide the public with information about care for older adults.

**Literature Review**

This review of the literature focuses on aging in print media over time, from the earliest newspaper content analysis to more contemporary research. Previous literature is reviewed in the order in which it was published. It encompasses various forms of print media (newspapers, magazines, and birthday cards) to provide a more comprehensive
review of the literature than would be possible by focusing solely on newspaper content analyses.

**Representations of Aging in the Media**

The first published newspaper content analysis about how aging is portrayed in the media was conducted by Broussard, Blackmon, Blackwell, Smith, and Hunt (1980). The sample was comprised of articles, advertisements, and graphics, that portrayed adults 60 years old and older from 10 national and metropolitan newspapers. Classified ads, inserts, supplements, and obituaries were excluded from the sample. The resulting sample was 2,073 newspaper items related to aging from 290 newspaper issues. The authors were interested in learning how much coverage was given to aging and aging issues, what topics were addressed, and what image of aging the newspaper items conveyed. The study measured the physical space that aging items occupied in each issue of a newspaper in the study, and found that aging items occupied 2.5% of all space, and slightly more space in newspapers serving areas with a higher population of older adults.

The authors classified the topic of an article as general information or as a special interest topic. “General information items were legislative, service, research, agency or organization reports and other related information. Special interest items were on aged individuals or couples, activities, organizations, education, sexuality or other” (p. 327). General information items accounted for 30% of the newspaper items, and special interest items comprised 70% of the sample. The newspaper items were also classified according to the image of aging that they portrayed, and it was found that 4% of the items conveyed a negative image of aging, 65% conveyed a neutral image, and 31% were positive. The authors conclude that the results dispute a common belief that the media
tends to convey a negative image of aging. Unfortunately, the authors did not look for differences in the image of aging between the general information and special interest categories.

Buchholz and Bynum (1982) were next to publish a newspaper content analysis about aging issues. The purpose of their research was to determine if the amount of coverage allotted to aging issues changed over time, what the coverage was about, and to learn how older adults were portrayed in the newspapers. The researchers analyzed all news items (except editorials) written about an older adult or an aging topic from a sample of approximately 120 issues of the *New York Times* and the *Daily Oklahoman* in 1970 and in 1978, resulting in a sample of 1,703 news items. The sample included news articles; obituaries, which comprised more than 25% of the sample; and other notices, such as funeral notices, retirement announcements, and wedding anniversaries, which comprised an undisclosed amount of the sample.

Buchholz and Bynum (1982, p. 84) measured how elders were presented in the newspapers with their “image” variable, which was classified as positive, negative, or neutral. Positive images included, “. . . elderly persons who were honored or praised, lived active lives after retirement, performed civic duties, shot holes-in-one, climbed mountains, and so on.” Negative images included, “. . . elderly persons who lived in nursing homes, were tried for criminal acts, were criticized for their performance, and so on.” Neutral images were defined as, “. . . a specific elderly person was not mentioned, . . . positive and negative elements canceled each other, or . . . there were no positive or negative elements.” The results showed that the majority of news items portrayed elders
and aging topics in a neutral or positive way, although the amount of negative portrayals increased over time.

Buchholz and Bynum (p. 84) measured how older adults were portrayed in news items using their “role” variable, which had three categories: active; passive; and neutral. “Active” described an elder in an article who is an actor, a person who acts upon things. The “active” category included stories “...about elderly persons who worked, performed charitable acts or civic duties, pursued hobbies, filed court suits, and so on.” “Passive” described a person who is “...the object of others’ activities.” The “passive” category included “...stories about elderly persons who lived in nursing homes, retired without indicating that they planned to keep active, were victimized by criminals, and so on.” “Neutral” described a story where “...the individual is neither actor nor object.” The “neutral” category included “...stories in which a specific elderly person was not mentioned, in which active and passive elements cancelled each other, and in which the activeness or passiveness of the elderly person portrayed could not be determined.” The authors found that 45% of the news items portrayed an elder as active, 30% gave a passive portrayal, and 25% gave a neutral portrayal; it was also learned that items portraying elders in an active role had a greater presence in the newspaper with a larger headline, longer article, and a location on a main page of a newspaper.

Buchholz and Bynum also classified the news items in their study as event oriented or issue oriented, according to the definitions provided by Ryan and Owen (1976). Event oriented stories are articles that provide a detailed report on a particular event that occurred at a specific point in time. Issue oriented stories are articles that report on a social problem, and do not focus on a particular event. Buchholz and Bynum also
added their own category called, “human interest feature,” for personal interview articles, and articles about “unusual situations” or accomplishments (p. 85). Buchholz and Bynum found more event-oriented than human interest or issue-oriented stories in their study (almost 80% of news items in their study were event oriented, and 11.1% of news items in their study were issue-oriented).

The results of the Buchholz and Bynum study must be used cautiously because most of the articles in the study (97%) were not news articles about topics identified as important to older adults. Instead, the majority of articles were obituaries or other notices (as described earlier); articles about public policy, or fraud, that was not exclusive to elders or aging; or articles placed into a catch-all category for miscellaneous articles. Only 3% of the news items in the sample covered topics identified as important issues for older adults, including the nine of the 1,703 news items in this study that addressed housing.

Wass, Almerico, Campbell, and Tatum (1984) conducted a study based on the earlier Buchholz and Bynum (1982) study. They repeated the variables used by Buchholz and Bynum to study newspaper coverage about older adults and topics related to aging in news items from 254 issues of the Sunday editions of 22 newspapers published across the country in 1983, resulting in a sample of 789 or 983 articles or graphics, depending on the variable being analyzed. The sample criteria excluded the classifieds, comics, the sports section, and Sunday supplements.

Wass et al. (1984) used definitions of issue oriented, and event / human interest oriented, as provided by Buchholz and Bynum (1982). They also created their own category titled, “non-problem,” for “articles that were non-event as well as non-issue but
dealt with a nonproblematic age-related topic, such as a report on the success of shared housing, of Elderhostel\textsuperscript{1} and other programs for older persons, and so on, . . .” (p. 339).

The authors found that the majority of news items were about a particular event, rather than a broader social issue, but the categories used to classify the news event items are too broad to yield useful information. For example, the “recipient” category includes news items about elders who were honored or received an award, but also those who had a health condition that required them to receive a transplant or hip surgery, and elders who need some type of unspecified help.

Wass et al. (1984) indicate that they use the definitions provided by Buchholz and Bynum (1982) in their “role” variable to describe how elders are portrayed in news articles. Wass et al. (1984) were looking for differences in coverage between national, state, and local newspapers. They found that there were large differences within the group of state-level newspapers in their active and passive portrayal of the elderly; one newspaper presented 24\% as active, while another newspaper presented 76\% as active. There were also large differences in the way local papers portrayed aging, with one newspaper showing 6\% of elders as active, and another newspaper showing 41\% of elders as active. Unfortunately, the authors were unable to attain sufficient intercoder reliability on an important variable they replicated from the Buchholz and Bynum (1982) study, the overall impression of aging portrayed in a news item, and this variable was therefore excluded from the analysis.

\textsuperscript{1} According to www.elderhostel.org, Elderhostel is an organization that provides educational opportunities for older adults, often as educational travel trips.
Another venue of the print media is magazines. In 1999, Bramlett-Solomon and Subramanian published a study of how elders are portrayed in advertisements in *Life* magazine and *Ebony* magazine. Their sample consisted of all advertisements (except classifieds), whether or not an older adult was in the advertisement, from every issue of each monthly magazine from 1990 to 1997, resulting in 9,314 advertisements. However, the only advertisements that were coded for analysis were ads containing an older adult, which consisted of 109 advertisements.

The authors were interested in the frequency of ads featuring elders, how elders are portrayed, if elders are portrayed differently in *Life* versus *Ebony*, and if these findings are different from those of an earlier study conducted by the lead author using data from 1978-1987. The authors found that 0.9% of ads in *Life* and 1.3% of ads in *Ebony* contained an adult 65 years old or older, and the percentage of elderly in ads is less than the percentage of elderly in the general population (indicating that older adults are underrepresented in magazine advertisements). They also found that the percentage of ads featuring an adult 65 years old or older declined from the first time period, 1978-1987, to the second time period, 1990-1997.

The Bramlett-Solomon and Subramanian (1999) study measured whether or not an elder was portrayed favorably in an advertisement by whether or not the ad was for an aging-related product or service. If the ad featuring an elder was for something aging-related, such as dentures, the ad was coded unfavorable, and if the ad was for a non-aging-related product, such as food, it was coded favorable. The majority of ads in both magazines portrayed elders favorably, but the percentage of these ads declined from the first to the second time period. Both magazines were most likely to portray an elder in
an advertisement with a young person rather than alone or with other elders, and this tendency increased from the first to the second time period. *Life* magazine portrayed mainly white elders and *Ebony* magazine portrayed mostly black elders. In both magazines, the percentage of white elders featured in advertisements declined from the first to the second time period, and the percentage of black elders featured in advertisements increased from the first to the second time period. The authors conclude that magazine advertising underrepresents and promotes negative stereotypes of the elderly.

In a study of the media’s presentation of long term care in 1998, Mebane (2001) analyzed multiple media formats, including 1,380 news items from 22 newspapers, 4 television channels, and 1 radio station (1,331 of the news items were from newspapers). The purpose of this study was to learn about the public’s knowledge and attitudes about long term care by identifying the topics discussed in a news item. Excluded from the sample were letters to the editor, obituaries, talk shows, international news, advice columns, repeat publications of a story, and stories unrelated to long term care (but that were identified by the search terms).

Data were collected on the primary and secondary topics addressed in the news items, the broader problems related to the primary topic, and on the placement of the news items in the published newspaper (this variable was not applicable to television and radio transcripts). Mebane found the most common long term care topic to be nursing homes, the second most common was home health care, and assisted living facilities was

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2 Seven of the newspapers contained no long term care stories.
the third most common topic (specific to newspapers, the order was: nursing homes; assisted living; and home health care). Mebane found that 12 to 13% of articles about each of these three common topics appeared on the front page of the newspaper. Front page coverage was Mebane’s measure of topics most likely to affect public attitudes; however, the intent of the study was to identify what attitudes are held by the public, which could be learned better by studying the impression of long term care given by news items.

Mebane (2001) found that the most prevalent secondary topic (the aspect of the primary topic that was the focus of a news item) varied across mediums. In newspapers, business related items were the most common secondary topic, such as personnel, government funding, and infrastructure. On television, the most common secondary topic was quality of care issues, including neglect and abuse, and on the radio the most common secondary topic was choosing appropriate care and alternatives to care. In regards to the broader problems that news stories relate to the primary topic, Mebane (2001) found their presence in approximately one-third of the news items, and the most common problem identified was the anticipated increase in the aged population (found in approximately seven percent of the news items).

Ellis and Morrison (2005) performed a qualitative content analysis on 150 birthday cards targeted to people 40 years old and older to identify and describe ageist messages in the cards. The most common ages targeted by the cards were 40 year olds (26%), 50 year olds (26%), and 60 year olds (13%). The front of the card was usually a cartoon or drawing (91.3%) rather than a photograph (8.7%), and most of the cards (91%) were appropriate for a male or female receiver.
The authors evaluated the tone of the graphic on the front of the card and determined that 44.7% were neutral, 34.0% were positive, and 21.3% were negative. The tone of the text messages in the cards was 66.7% negative, 28.0% positive, and 5.3% neutral. A chi-square analysis showed a significant difference between the tone of graphics on cards directed toward adults 40 to 59 years old (31% negative tone) versus adults 60 to 100 years old (11% negative tone). The authors speculate that this difference may be due to several reasons: 1) that humorous cards (often those with a negative tone graphic were humorous) are more appropriate for the 40-59-year-old age group than the 60-100-year-old age group; 2) if, due to mortality, people purchasing cards for 60-100 year olds are younger than those for whom they have purchased the card, then a belief in respecting one’s elders may increase a demand for more respectable cards targeted to the 60-100 year olds; and 3) if persons less than 60 years old are more likely to purchase cards (due to mortality effects), then it may be more acceptable to purchase humorous cards for one’s peers than for an older age class.

An analysis of the text messages in the cards showed a majority (66.7%) contained negative tone text messages, 28.0% contained positive tone messages, and 5.3% contained neutral tone messages. The authors reviewed the cards in each tone category and grouped them according to topics presented by the text messages of the cards. Most of the negative tone cards promoted stereotypes about aging using humor, almost half of the positive tone cards (47.6%) were sentimental messages “celebrating a special milestone” (p. 67), and there were no commonalities identified amongst cards with neutral text messages. The authors found no significant difference in the tone of text.
messages in the cards between 40 to 59 year olds and 60 to 100 year olds (negative tone messages were the most common in both age groups).

Ellis and Morrison (2005) use terror management theory to explain that people have an instinctual need to survive that drives them to distance themselves from the elderly who are a reminder of ultimate decline and death. In the context of their study, the majority of cards containing humorous negative stereotypes in their text messages is interpreted as a way to create distance between oneself, the sender of the card, and the aged receiving the card.

Payne, Appel, & Kim-Appel (2008) studied articles about elder abuse and child abuse in 11 newspapers from 1999 to 2003 to determine if elder abuse coverage varied by newspaper, and to compare elder abuse and child abuse coverage. The authors identified 530 articles on elder abuse that they content analyzed and compared to the counts of child abuse articles to determine if readers are receiving adequate information about elder abuse. They did not identify what items were excluded from their sample, but they required their key phrases of “elder abuse” and “child abuse” to be present in either the headline or first paragraph of an article, which likely excluded advertisements and obituaries. The authors found that there were more child abuse articles than elder abuse articles published in every newspaper, ranging from 7:1 in the San Diego Union-Tribune to 102:1 in the New York Times. The authors propose that more child abuse articles are published than elder abuse articles because there are more children than elders in the population, therefore instances of child abuse are more likely than elder abuse. They also speculate that the higher population of elder abuse articles in the San Diego Union-Tribune compared to other newspapers is because Southern California has a high
population of older adults, this area has demonstrated willingness to prosecute cases, which may increase reporting of elder abuse, and it has special units to investigate and prosecute cases, and newspaper reporters may have relationships with people in these units which may increase reporting of elder abuse cases to the press.

Atkinson and Herro (2010) focused their research on the frequency of age references and the use of aging stereotypes applied to a professional tennis player in 121 age references from 98 *New York Times* articles from 1990, 1994, 1995, 1999, 2002, and 2005. The authors found that the player’s age was reported more frequently as he got older, and although the authors do not identify “objectivity” as a variable in their study, they conclude that the lack of consistency in reporting the tennis player’s age over time demonstrates a lack of “journalistic objectivity” (p. 97).

The authors report that early newspaper articles about the tennis player reported on his youth, and later stories about the tennis player reported on his aging, and the later stories often amplified his aging by contrasting it against descriptions of the youthfulness of his younger opponents, or to himself when he was younger, thus implying a loss of these youthful characteristics, positive or negative (for example, powerful or naïve), over time.

The authors provide examples of positive and negative descriptors of youth and old age that occurred in the news stories, however, they do not report the frequency of positive and negative stories over time, therefore, it is not known how much emphasis the stories place on the negative and positive characteristics of youth or old age.

Although the focus of Atkinson and Herro’s (2010) study was not on “successful aging” (and the authors never use this term), the authors say that the professional tennis
player was presented as extraordinary for being able to compete at such an advanced age, and that journalists were applying stereotypes of much older people, such as bald, weak, slow, and having a bad back, to the 35-year-old tennis player. It is concerning that the media frame the tennis player as defying his age for being able to play tennis at 35 years old. The authors say that articles describe him as old, even calling him a geezer, but also say that he is still athletic and competitive. It seems an older adult reading the 2005 articles that are laden with negative aging stereotypes, may relate to these descriptors, but then the age defying traits of the tennis player that are highlighted may leave an older reader with a sense of failure for not being as physically fit and capable – yet the article was not about an older adult who has defied aging, but rather a middle-aged man who is decades away from old age.

Rozanova (2010) searched the 2004 to 2006 issues of The Globe & Mail, a Canadian newspaper, and identified 146 articles that were about aging or that featured someone 65 years old or older for inclusion in her study. Photographs from the newspaper were not included in her sample. Rozanova read the articles and recorded their themes from a successful aging perspective, which classified the articles into one or more of three groups: “successful aging is a personal choice;” “individual responsibility for unsuccessful aging;” and “aging successfully by staying engaged” (Rozanova, 2010, p. 217). All of the articles were found to have the “successful aging is a personal choice” theme, which commended individuals who made the appropriate lifestyle choices and were therefore able to defy the undesirable consequences of aging such as becoming less physically attractive, less physically capable, and more likely to have a physical illness. Approximately 77% of the articles also featured the opposing theme, “individual
responsibility for unsuccessful aging” which blames the individual for making inappropriate lifestyle choices that cause undesirable attributes of aging, typically a decline in physical health. Lastly, approximately 38% of the articles also contained the “aging successfully by staying engaged” theme that usually featured people who retired, but then dismissed retirement as idle time and returned to work to keep busy (not because they required the income), or featured people who volunteered in their community to keep busy.

Rozanova (2010) concluded that in response to the growing population of older adults, the Canadian government is promoting successful aging, that encourages people to take personal responsibility for their health, and in turn shames those who fail to age successfully, as a preventive measure to reduce or control the escalating government costs of caring for older adults.

This literature review described aging research using content analysis in the print media over time. Early studies included any story related to aging in the press, and later studies refined their focus to specific topics about aging. The variables studied changed over time. Newspaper researchers originally studied the tone conveyed in an article about aging, but this was not seen in later newspaper studies, only in a study of birthday cards targeted to older age groups. Also, although one study reviewed included local newspapers (in addition to national and metropolitan newspapers), none of the studies focused exclusively on local press for a detailed analysis of aging coverage.
Rationale

Content analyses about aging issues in the past have had small sample sizes, lacked a geographic focus that would make their results most useful by showing how broader issues manifest themselves locally, and sometimes had difficulty, or did not, measure the tone that articles about aging topics conveyed upon their readers. Also, other researchers did not measure the quality or objectivity of the items in their samples.

In Buchholz and Bynum’s (1982) study, only 3% of the sample upon which they conducted their data analysis was actually comprised of articles about aging. This results in a relevant sample of 51 articles about aging, nine of which were about housing, and one that discussed demographic shifts in the aging population. Although Wass et al. (1984) have a large sample, obituaries and other notices (such as birthdays, anniversaries, death notices, and retirements) that are not articles relevant to aging were included and encompassed approximately 29.6 to 36.9% of their sample. It is unknown if removing these items from their sample would alter the results of their study. Wass et al.’s (1984) work did not identify any news items about housing or demographic shifts in the older population. Obviously, the social climate in America has changed since these early studies were published. As the country experiences significant growth in the older population, this calls for an update of the content analysis literature on aging issues addressed in the media, particularly in regards to older adult care and living arrangements for older adults.

Wass et al.’s (1984) research also showed that large differences exist in the presentation of aging issues across state level newspapers and across local newspapers. This suggests that generalizability of a particular study’s results will likely be limited,
and confined to particular states or particular communities. Therefore, in order to obtain information about aging issues that will be useful for policymakers and communities, content analysts must investigate media representations of aging issues, and the public knowledge and opinions that arise from those representations, at the community level. Members of a community decide on what programs, services, and institutions are needed in their communities through representatives from the community that are elected to the state senate and assembly, where they make decisions that affect their communities, through votes on propositions, and through community hearings.

Also, an important variable for identifying the public opinions that evolve from the media is the “image” variable first used by Broussard et al. (1980) and Buchholz and Bynum (1982), which Wass et al. (1984) referred to as “impression,” and attempted to replicate, but was unable to use in analysis due to low intercoder reliability. Mebane (2001) who later conducted a large content analysis on how long term care issues were presented in America’s media did not use the “impression” variable, and instead chose to use an article’s placement in the newspaper as a measure of the impression an article gives of its topic; this may identify the priority that an article is given, but this is a very narrow way to gauge impression\(^3\), and an unsuccessful measure for many articles because the computerized databases from which articles are retrieved provide limited information about an article’s original appearance in a printed newspaper. Ellis and Morrison (2005) also studied impression, which they referred to as the “tone” of messages contained in

\(^3\) Kim, Scheufele, and Shanahan (2002) more appropriately label the location of an article in a newspaper as the “prominence” variable.
birthday cards, as a way to gauge the promotion of negative stereotypes about aging, but because they studied birthday cards, something a person may shop for only once per year, the ability of birthday cards to promote stereotypes may be more limited than the ability of a more frequently utilized media such as newspapers to promote stereotypes.

This dissertation is the first quantitative analysis of information about older adult care that is presented in the media. It is a timely analysis of issues of concern for older adults, caregivers, and potential caregivers. Along with a large sample of newspaper articles prescreened for relevance on the issues of caregiving, long term care, and the living arrangements of older adults, this dissertation, a content analysis case study of a particular geographic region, will yield extensive results about the presentation of older adult care in the media that are specifically useful to the region under study, as opposed to other research that has combined media sources from unrelated locations, only to find that each location is unique, and no substantive data were obtained that could provide targeted recommendations for any one of those regions. This dissertation will also analyze media frames presented in local newspapers in conjunction with measures of article quality, objectivity, and the impression of aging produced by the articles to obtain the most comprehensive picture of local newspapers’ potential to influence the public and policymakers in New York’s state capital.

**Purpose of Study**

As people age, there is an increased likelihood that they will require assistance to care for themselves. The purpose of this research is to examine the coverage of care options for older adults that are presented in select newspapers, which inform the public,
including the baby boomers and older generations who are interested in planning for their future and caring for their parents, and for younger generations whose impression about aging will be influenced by the information they receive from the media.

**Theoretical Framework and Conceptual Model**

The following sections identify and explain the theoretical framework from which the concepts, variables, and later, the explanations that are derived from the results of this study, can be understood. A conceptual model providing a visual of the relationships between the concepts in this dissertation, in the form of research questions, is also presented.

*Theoretical Framework*

Riffe, Lacy, and Fico (1998) summarized theories of media effects into a framework they labeled the *centrality model of communication*, with “centrality” meaning “content centered,” and showing that by analyzing content, a researcher can reveal the antecedent conditions that led to the content, and the effects that stem from the content. Since the central focus of the model is communication content, content analysis is the method by which researchers can identify antecedent conditions, such as an individual’s personal experience or cultural conditions, that affect what is presented in the communication content, and researchers can examine the communication content to identify the individual or societal effects that the content is correlated with, or that it has influenced.

Figure 1 presents the centrality model as applied to this dissertation. In the model, baby boomers entering older adulthood is the antecedent condition that is assumed to
affect communication content in the form of newspaper articles about care options for older adults. These newspaper articles are then presumed to affect, or be correlated with, public knowledge and opinions. The variables examined in this dissertation focus on the antecedent condition and the communication content sections of the model, which are emphasized with bold outlines in Figure 1.

Studies of media effects have shown that information presented in the media affects people’s knowledge and opinions (Brescoll & LaFrance, 2004; Entman, 1989; Kim, Scheufele, & Shanahan, 2002; McLeod, Scheufele, & Moy, 1999; Scheufele, Shanahan, & Kim, 2002). One way that media effects are studied is by identifying media frames for a particular research topic. A media frame is the manner in which a journalist constructs an article so that the article portrays an issue in a particular way. For example, journalists can choose to include or exclude topics from an article to focus reader’s attention, they can present certain facts or opinions and omit others, and they can use descriptive language and metaphors. Studying media frames, the presentation of a news story, is a technique used in media effects studies referred to as framing analysis.
Figure 1. Centrality model of the communication process applied to the content analysis of care for older adults presented in New York State Capital Region newspapers.

Note: This dissertation focuses on the antecedent condition and the communication content portions of this model. The parenthetical information in each shape exemplifies how that piece of the model applies to this dissertation. The parenthetical information that is italicized in the top two shapes identifies the concepts in this dissertation that are studied within this model.
Framing

Frame theory proposes that how an issue is presented affects how people think about that issue (Scheufele, 2000). Framing refers to how a journalist presents a story, using discourse devices to draw attention to some items over others, and promote or discredit certain opinions and ideas. Frame setting analysis has demonstrated that the way an issue is framed affects public opinion and knowledge about that issue (Huang, 1995/1996; Nisbet et al., 2002; Price, Tewksbury, & Powers, 1997).

Through the identification of media frames, this dissertation will describe how care options for older adults are presented in the media, and the results of this research will be used to gain a better understanding of the messages to which people are exposed.

Concepts and Conceptual Model

Figure 2 is the conceptual model that shows how the research questions relate to the concepts being studied in this dissertation. The quality, objectivity, and tone of each topic will be examined, then any differences in the topics, quality, objectivity, and tone of articles over time will be identified. This conceptual model follows from the concepts identified in the Antecedent Condition portion, and the Communication Content portion, of the Centrality Model of Communication presented in Figure 1. The antecedent condition consists of the time concept, and begins when the first baby boomers began reaching age 55. The communication content portion of the centrality model consists of the newspaper articles included in this study which are all about some form of older adult care, or circumstances when older adults do not need assistance to care for themselves, and is measured using the concepts of topics, quality, objectivity, and tone. These
concepts, presented in Figure 2, are defined below along with the concept of care for older adults, as it is used in this dissertation.

*Figure 2. Conceptual model of relationships to be studied in this dissertation.*

Note: Each concept is represented in a circle. RQ stands for “research question,” and the number following RQ identifies the particular research question to which that portion of the model refers. The name of the statistical test that will be used to answer the RQ is written below the RQ. The “(2)” written after the name of the statistical test for RQs involving the topics concept indicates that two tests will be performed, one test for each of the two variables that comprise the topics concept.
Care for Older Adults

The phrase, “care for older adults” is used interchangeably with, “care,” “older adult care,” “care options for older adults,” and “long term care” in this dissertation. Care for older adults is conceptualized as the provision of, or assistance with, cognitive or physical tasks, such as balancing a checkbook or preparing a meal, to an older adult who is unwilling or unable to perform this task independently. The tasks are performed by a person, such as a family member or home health aide; a service agency, such as a township that provides transportation for senior citizens, or a volunteer group that delivers inexpensive meals to older adults; or an environment, such as an assisted living facility or nursing home. This conception of care refers to care that is provided for an extended period of time, typically to people who will require some form of care during the remainder of their lifetime, and does not refer to short-term care, such as that which might be necessary following a physical injury (e.g., short-term physical therapy to regain strength after breaking a bone).

Topics

This dissertation identifies the topics that are presented in articles about care for older adults. It identifies the overall topical theme of the article, and then identifies the living arrangement (whether the article focuses on a community-based or an institution-based care environment) presented in an article.

Quality

The concept of quality refers to the information presented in the article. The content of the article is reviewed for information that is misleading or biased, of little use, or helpful and informative. It determines if the article is substantive or not.
Objectivity

Objectivity is conceptualized as the professional conventions that journalists use to demonstrate impartiality in their news reporting, and includes quotes from experts, reporting someone’s point of view, and citing empirical evidence (Pan & Kosicki, 1993).

Tone

Tone is the overall impression about care for older adults that a reader gets from reading a newspaper article. It is this immediate impression that a reader experiences upon conclusion of the article, such as feeling concerned about how she or he will be treated as an older adult, or feeling hopeful about retaining her or his independence through older adulthood. Other labels for the concept of tone are: bias; stance; slant; image; and impression (Blowers, 2006; Buchholz & Bynum, 1982; Wass et al., 1984).

Time

Time refers to the three time periods during which the articles analyzed for this dissertation were originally published.

Research Questions

This dissertation will answer the following four research questions, thereby describing the messages (communication content) promoted by the newspapers, which inform public knowledge and opinion. These research questions are depicted in Figure 2.

1. Are topics presented with quality information from the media about care for older adults?

2. Are topics presented in an objective manner with respect to care for older adults?
3. Does the tone of articles about care for older adults vary from topic to topic?
4. Did coverage of older adult care change as more baby boomers reached age 55 between the years 2001 and 2004?
Chapter 2.

Methodology

This research uses a quantitative content analysis of newspaper articles about care for older adults. A total of 18 months of articles were included in the sample from a four-year time period, 2001 to 2004, from four newspapers in the Capital Region of New York State.

Content analysis is a research method employed by researchers interested in examining human communication in print, audio, or visual materials (Scheufele, 2008). Riffe, Lacy, and Fico (1998, p. 20) define quantitative content analysis as, “. . . the systematic and replicable examination of symbols of communication, which have been assigned numeric values according to valid measurement rules, and the analysis of relationships involving those values using statistical methods, in order to describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption.” Symbols of communication are, for example, words, phrases, themes, photographs, charts, location of an article in a newspaper, and whether an article is a news story or an editorial.

In order to conduct a quantitative content analysis, Riffe, Lacy, and Fico (1998, p.2) identify the following steps:

1. draw “. . . representative samples of content”
2. train coders to apply category rules to the content
3. measure “. . . the reliability . . . of coders in applying the rules”
4. analyze data “… to describe what are typical patterns or characteristics, or to identify important relationships among the variables measured.”

**Sample**

This research uses purposive sampling in a multistage sampling design. A computerized database for each newspaper was used to search headlines and full text for three time periods using nine pre-defined keywords.

**Newspapers**

The four counties that comprise the Capital Region are Albany, Rensselaer, Saratoga, and Schenectady. The newspaper of record\(^4\) for each county was identified and selected for this dissertation through the Researcher and collaborators’ knowledge of the geographic area under study. In Albany County, this newspaper is the *Times Union*, having a circulation of 96,206 Monday through Saturday, and 136,032 on Sundays (Hunt-Lowrance, 2007). The newspaper in Rensselaer County is *The Troy Record*, having a circulation of 15,680 Monday through Saturday, and 17,113 on Sundays (Hunt-Lowrance). In Saratoga County, the newspaper is *The Saratogian*, with a circulation of 10,248 Monday through Saturday, and 11,871 on Sundays (Hunt-Lowrance), and in Schenectady County, the main newspaper is *The Daily Gazette*, with a circulation of 48,568 Monday through Saturday, and 50,984 on Sundays (Hunt-Lowrance).

\(^4\) A newspaper of record is a local newspaper that reports death notices, name changes of citizens, and other legal notices.
Articles

Computerized databases were used to identify and retrieve all newspaper articles for this content analysis. The Daily Gazette was accessed on CD-Rom at the Schenectady Public Library in Schenectady, New York (at the time of article identification and retrieval, no online source contained archival articles, and the CD-Rom is not available for purchase). The Times Union was accessed via the LexisNexis subscription service, and The Saratogian and The Troy Record were accessed via their respective websites.\(^5\)

Time Periods

This dissertation arose from a project that the Researcher conducted to evaluate the impact of a new community program on the local media (Elder Network of the Capital Region, n.d.). Three time periods were identified for that study, each period corresponding to a different stage of the community program’s implementation. The first time period is six months prior to any public exposure to the community program, from April 01, 2001 to September 30, 2001. The second time period is the last six months of the planning period before the program began, from January 01, 2003 to June 30, 2003. The third time period is the last six months of the program’s first year in operation, from April 01, 2004 to September 30, 2004. In respect to this dissertation, the first time period occurs in the year that the oldest baby boomers begin reaching age 55, with more baby boomers reaching age 55 in the later years of the study.

\(^5\) http://www.saratogian.com and http://www.troyrecord.com
Search Terms

The search terms entered into each computer database for this study were the terms originally used for the community program evaluation from which this research developed. The search terms were selected, tested, and adjusted to produce the highest quantity of the most relevant search results on all topics related to aging. This process resulted in the following nine search terms: elderly; aging; senior citizen; Medicare; long term care; Medicare prescription card; Medicaid; nursing homes; and Alzheimer’s disease. (For purposes specific to the community program evaluation, the “Medicare prescription card” search term was left in the list of search terms, although it is understood that any articles that this term would retrieve, would already have been retrieved by the “Medicare” search term.)

Each search term was separately entered into a database to search a newspaper and time period. For example, the computerized database for The Daily Gazette was accessed, “elderly” was typed into the search field (without quotations), the dates of the first time period, April 01, 2001 to September 30, 2001, were entered into the date parameters, the database search was executed, and the list of articles retrieved from this query was printed. Next, the search fields were cleared and a new search of the database for The Daily Gazette was conducted for articles published during the first time period using the search term, “aging” (without quotations). This process was continued until each search term had been used to search the first time period of The Daily Gazette.

Inclusions

Articles met the inclusion criteria if they contained a search term specified for this study, and were published during the time periods specified for this study. This resulted
in the identification of 1,878 articles from *The Daily Gazette*, 266 articles from *The Saratogian*, 2,099 articles from *Times Union*, and 440 articles from *The Troy Record*.

**Exclusions**

For the community program evaluation, any article that was not about an older adult or an aging topic was excluded from the dataset. If an article was identified in multiple database searches, one copy of the article would be retained, and other copies would be excluded. Articles were also excluded based on the type of article or section of the newspaper in which the article was published; such exclusions were: book reviews; church announcements; classified advertisements; community activities (community calendar); food sections; movie and theatre reviews; non-classified advertisements; obituaries; advice columns; and police beat.

For this dissertation, articles were also excluded if they were not about, or did not feature, care for an older adult or an older adult living independently without assistance. This was accomplished by first selecting all articles identified with the search terms, “long term care” and “nursing homes,” (which exemplify the concept of care studied in this dissertation because they are about a living arrangement in which care is provided to an older adult, or some other circumstance in which care is provided to an older adult), then hand sorting (reading, then selecting or eliminating) the remainder of the printed articles (that were identified with different search terms) to identify the articles that fit the concept of care as defined for this dissertation; all articles outside the concept of care were excluded from this dissertation.

After exclusions, the final sample size for this dissertation was 343 articles (7.32% of the articles identified in the computer searches of all the newspapers in this
study). The final sample includes 170 articles from The Daily Gazette (9.05% of articles identified in the computer search for this newspaper), 13 from The Saratogian (4.89% of articles from the computer search of this newspaper), 136 from the Times Union (6.48% of the articles from the computer search of this newspaper), and 24 from The Troy Record (5.45% of the articles from the computer search of this newspaper).

**Variables**

The following subsections are labeled by concept, and operationalize the variables measured for each concept, from the data collection instrument used in this dissertation, and presented in the Appendix.

**Objectivity**

The concept of objectivity is measured with the objectivity index. The objectivity index is a scale from zero to seven that is scored by adding the values from seven dichotomous variables that are scored one or zero for the presence or absence of professional and non-professional commentaries, and the presence or absence of numerical quantities (such as frequency counts, monetary value, and arithmetic calculations) in each article. Each of the seven items in the index are framing devices used by journalists to convey their objectivity, and thus the objectivity of their news article (Pan & Kosicki, 1993). The seven variables that have been recoded into the objectivity index are: on-site professional resource; off-site professional resource; elder layperson; other layperson; count; money; and calculation.

“On-site Professional Resource” records whether or not the persons providing information for the article are providing this information based on their professional capacity (employment) at a particular event or location. For example: a nurse, director, or
human resource personnel provides information about an agency featured in an article, or
the reporter provides information from an agency report; a police officer or district
attorney comments on a case featured in the article.

“Off-site Professional Resource” records whether or not the reporter provides
information from a professional resource, such as a person, report, study, et cetera, that is
not an employee of an agency affiliated with the subject of the article (such as a nursing
home or law enforcement agency), nor a report published by an agency affiliated with the
subject of the article. For example, a person interviewed or a report cited does not have
information about the specific site or event that is featured in the article, but has general
information that can provide insight on the situation at a specific site or event, such as a
federal government report on the incidence of bed sores in nursing homes is referenced in
an article about patient care in a local nursing home. Coders are also instructed to code
“Yes” if the article is reporting on research.

“Elder Layperson” is coded “Yes” if an older adult, outside of any professional
capacity, is identified as having provided information for the article. The person may be
identified as an older adult by a photograph or by a description (such as a “70-year-old,”
“nursing home resident,” or “retiree”). Lawson and Kinsella (1997) describe those 55
years of age and older as older adults. For this dissertation, persons 55 years and older
were also classified as older adults.

“Other Layperson” refers to a person, outside of any professional capacity, who is
not identified as an older adult, and has provided information for the article. This person
may be an older adult, but if that is not evident by a photo, description, or insider
information not provided by the article, coders are instructed to select “Yes” for “Other Layperson.”

“Count” signifies that the “number of” something is provided in the article, such as a head count or tally of people or things; it is a frequency count (for example, the number of beds, the number of residents in a facility, the number of states, et cetera). If an article contained proportions, such as “one-third of people admitted . . .,” this was coded “Yes” for Count. Coders also scored this variable “Yes” if an arithmetic average (mean) was reported for a “number of things,” such as the average number of months, beds, or flu shots. However, coders were instructed not to score the Count variable “Yes” if the mean they are scoring is average income or average age (these are scored as Money or Calculation).

“Money” indicates that a monetary amount is presented in the article. If an average monetary amount is reported, such as average income, savings, or home value, this is also scored “Yes.” Coders were also instructed to code the Money variable “Yes” if a “percent of cost” is reported, such as, “75% of nursing home costs covered by Medicaid.” Coders were instructed to code the Money variable “No” if money was not discussed in the article, or if money was only discussed due to its absence, for example, something is free [of charge].

“Calculation” refers to a numerical value, other than count or money. This will usually be a percent, but can also be an arithmetic average that does not fall within “Count” or “Money,” such as average age or average size. A “percent” in the article, however, does not automatically qualify for a “Yes” response to this variable. For example, a statement such as, “deduct health expenses that exceed 7.5 percent of your
adjusted gross income” does not, by itself, qualify as a calculation (nor does it qualify for the “Count” or “Money” variable), because the percent in this example is part of a set of instructions, and does not indicate that the author of the article, or someone who the author is referencing, actually performed a calculation.

**Quality**

The concept of quality is assessed with the quality variable, which is an assessment of the information provided in an article. An article is coded as bad quality if the information contained in the article is misleading, hurtful, or biased / opinionated. An article is coded as neutral quality if it is unremarkable, or the information contained in the article was not useful. An article is coded as good quality if it presents balanced information (both sides of an issue), helpful information, or presents a multitude of apparent facts. For example, in a balanced article, when a local politician presents his suggestion for where to build a new county nursing home, this information is followed by his opponent’s differing suggestion; and when the incumbent’s idea to reduce Medicaid spending is presented, it is followed by his opponent’s opposition and reason for why the incumbent’s plan will not work.

**Time**

The “Time Period” variable corresponds to the three time periods during which the articles included in this dissertation were published. The three time periods are: April 01, 2001 to September 30, 2001; January 01, 2003 to June 30, 2003; and April 01, 2004 to September 30, 2004. Coders select the time period that encompasses the date of the article.
**Tone**

The tone concept, used to assess the tone, or slant, that the media convey about a particular topic to the reading public, is measured with the “Impression of Aging or Aging Issue” (impression) variable. The impression variable in this dissertation is defined in the same way Buchholz and Bynum (1982) defined their “image” variable, and in the same way Wass et al. (1984) defined their “impression” variable. Coders were instructed to code an article as negative, neutral, or positive, according to the immediate impression they were left with after reading an article. An article was coded “negative” if information was misleading, hurtful, stereotypical, gave an unfavorable impression of aging, or the article made coders worry about how they will be treated, or how they will care for themselves, when they are older. For example, an article can invoke worry about Medicare coverage by saying that changes in the program “would make it more difficult for beneficiaries to appeal the denial of benefits,” and that “when claims are denied, a beneficiary is often required to pay tens of thousands of dollars for services already received,” and throughout the same article is information on how the freedom of judges to rule on these denials may be curtailed by a federal proposal. An article was coded “neutral” if it presented balanced information, or the reader was not left with a distinctive good or bad impression. Neutral was also selected if the article left a reader feeling, “we will have to wait and see what happens” (like the outcome of the story is yet to be known). An article was coded “positive” if helpful information, a hopeful outlook, or a favorable impression of aging was portrayed.
**Topics**

The topics concept is measured by the theme variable and the living arrangement variable.

**Theme.**

The “theme” variable classifies each article by the main or overall theme that is presented in the article. An article’s placement in a particular theme category provides a description of the article that is the broadest frame within which the issue or event presented in the article can be classified. Identifying the main theme of an article as an article’s frame is a standard classification in framing analysis (Buchholz & Bynum, 1982; FrameWorks Institute, 2002; Mebane, 2001; Ulsperger, 2002). Coders were instructed to code an article into one of the following categories, using the article’s headline as a guide, if necessary: Healthcare Costs; People; At Risk Elders; Elder Abuse; Government Policies; Health Education and Wellness; Disease / Chronic Condition; Healthcare Systems; and Other.

“Healthcare Costs” includes information about Medicare, Medicaid, employer-sponsored health insurance, private pay health insurance, health maintenance organizations (HMOs), long-term care insurance, prescription costs, and financial issues related to healthcare organizations and institutions, such as hospitals, nursing homes, rehabilitation centers and homecare health agencies.

“People” includes information about older adults and their social experiences or concerns. For example: stories about the daily lives of older adults or their societal contributions; demographics; retirement; baby boomers; and feel-good stories.
“At Risk Elders” includes information about older adults who, by physical, social, or economic conditions, may be at risk for negative outcomes such as illness, isolation, crime, and poverty. The elder was not victimized, but due to physical, social, or economic circumstances, has an increased potential of being victimized. If a coder must choose between People and At Risk Elders, At Risk Elders should be chosen.

“Elder Abuse” includes information about older adults who have been the victims of abuse or neglect (negligence), usually by someone they have a prior relationship with; including physical abuse or neglect, psychological / emotional abuse or neglect, financial abuse or neglect, or self-neglect. Examples include purposeful acts that knowingly have the potential to cause the elder harm, such as: actively restraining or striking the elder; actively withholding food, water, medications, or other treatments necessary to sustain life; actively using the elder’s financial resources for personal gain; or disregarding or overlooking care regimens and protocols necessary to sustain comfort, support, and optimum health.

“Government Policies” includes information related to changes in national, state, or local institutions directly affecting older adults and not related to healthcare costs. Laws, bills, regulations, and a candidate’s political platform fall into this category. Examples include: proposed changes in driving laws; housing (including assisted living facilities) regulations; tax laws; social security; and banking regulations.

“Health Education and Wellness” includes information related to strategies for maintaining optimum health and wellness. For example, articles about diet, exercise, falls prevention, self-discovery, vaccinations, health fairs, and articles providing specific instruction to improve health.
“Disease / Chronic Condition” includes information about specific diseases or conditions affecting older adults. Examples are: information that explains the causes of a disease or condition; information on new protocols for care (other than general health and wellness information); newly developed medications; or studies or the need for studies on diseases and chronic conditions.

“Healthcare Systems” includes information about hospital systems, nursing homes, and other large institutions regarding policies, programs, staffing, et cetera. Financial issues affecting these institutions are not included in this category (see Healthcare Costs category).

The “Other” category is selected if none of the predefined theme variable categories satisfactorily describe the overall theme of an article being coded. The coder circles the number that corresponds to this category, and then writes in a description that best portrays the theme of the article in his or her own words.

After reviewing the frequency counts of the nine theme categories in the data collection instrument, it was determined that four of the categories should be condensed into two categories, to compensate for low frequency counts in these four categories, and one category should be eliminated from analysis due to its lack of use (low frequency count). The “At Risk Elders” and “Elder Abuse” categories were condensed into the “Elder Risk” category, and the “Health Education and Wellness” and “Disease / Chronic Condition” categories were condensed into a “Health and Disease” category. The “Other” category was eliminated.
**Living arrangement.**

The “living arrangement” variable identifies what types of living arrangements are presented in an article. This variable provides more specific news frames (than the theme variable) in which to classify articles (Buchholz & Bynum, 1982; Ulsperger, 2002). Coders were instructed to select “Yes” for each category that was present in an article, and “No” if a category was absent from an article. The categories are: independent at-home; family caregiver; home health aide; rehab center; nursing home; assisted living facility; senior housing; retirement community; hospice; unspecified; other; and none.

“Independent at-home” is defined as a person who cares for her or himself without any assistance from others, or by utilizing services that allow the person to remain living at home, such as meals-on-wheels, or a transportation service that caters to seniors. This person lives in a private residence that is not marketed as “senior housing.”

“Family caregiver” refers to a biological relative, friend, or neighbor who provides an elder with assistance to care for her or himself, and is not paid for providing this assistance.

“Home health aide” refers to a person who is paid to provide an elder with assistance caring for her or himself.

“Rehab center” is a residential institution designed to provide persons with physical or medical rehabilitative services with a goal for the person to eventually return to his or her original place of residence, where he or she resided prior to whatever event necessitated his or her use of a rehab center.
“Nursing home” is a residential institution that provides supervision and varying levels of medical care. Synonymous with “nursing home” is: skilled nursing center; skilled nursing facility; constant care facility; county infirmary; home for aged; and home for the aged.

“Assisted living facility” refers to a residential environment that provides services such as housekeeping and meal preparation.

“Senior housing” refers to age-segregated cluster housing that requires a person to be of a certain age, and often to be within a certain economic group, in order to establish residence.

“Retirement community” refers to a community that markets itself to retirees, provides lodging, and usually provides other amenities such as communal dining and social activities. “Naturally occurring retirement communities” are not included in this category; they are included in “other.”

“Hospice” refers to palliative care to keep a person comfortable when he or she has a condition that will not improve and that will end in death. Palliative care may be provided to a person in his or her home in the community, or while he or she is in an institutional environment.

“Unspecified” is selected if an article is about care for older adults, but is too vague to identify all or some of the types of living arrangements that are discussed in the article.

“Other” is selected if an article discusses a type of living arrangement that is not listed in the predefined categories, and is identifiable to the coder (not “unspecified”), so
that the coder may write in a description of the type of living arrangement in his or her own words.

“None” is selected if an article did not present any type of living arrangement for older adults.

The coding technique used in this multiple choice variable necessitated the creation of 12 variables in the dataset, one for each category of the living arrangements variable. When reviewing frequency counts of some preliminary data, it was observed that few articles were classified into several of the categories. In order to make the living arrangements variable more conducive to statistical analysis, the living arrangements variable was recoded into five mutually exclusive categories (each article was placed into only one category) scored zero to four, and titled respectively: none; community [based]; institution [based]; both (community and institution); and unknown. A description of each of these categories follows.

“Community” refers to a type of living arrangement that offers higher levels of independence and freedom compared to “institution” style living arrangements where a person is more dependent on others for care, and is subject to rules of the institution (such as having to use the doctor that services that facility, and socializing with persons residing outside the facility during predetermined visiting hours).

Articles that were originally scored “none” were recoded into the “none” category. Articles that were originally coded: independent at-home; family caregiver; home health aide; senior housing; or retirement community were recoded into the community based care category. Articles that were originally coded: rehab center; nursing home; and assisted living facility were recoded into the institution based care
category. Articles originally coded “other” were evaluated on a case-by-case basis and, if possible, recoded into the community based care or institution based care category. Articles that contain community based care and institution based care were further recoded into the “combination” (community based care and institution based care) category. Articles that were originally coded hospice were also recoded to the “combination” category because it cannot be ascertained from the data if hospice services were rendered in-home or in an institution. Articles originally coded “unspecified,” or “other” where the coder did not write in a type of living arrangement, were recoded into the “unknown” category.

The “none” and “unknown” categories are excluded from analysis because articles that do not address a type of living arrangement (those coded “none”) are not related to care for older adults that is studied in this dissertation, and therefore should be removed from the dataset; and articles that cannot easily be classified into community, institution, or a combination of community and institution on the living arrangements variable (those coded “unknown”) are predicted to be few in number, and therefore not useful to this analysis. It is, however, important to assign articles to “none” and “unknown” if that is the most appropriate category, because it shows the Researcher that these articles have been recoded (and not overlooked), and it shows the reason for their exclusion from analysis.

Instrumentation

The Researcher developed a two-page data collection instrument for this dissertation (see Appendix). The Researcher began with the one-page instrument used in the community program evaluation project, and groomed it into the final instrument using
input from previous research, and pilot testing of the instrument as it applies to this dissertation. The following discussion refers to the instrument used to collect data for this dissertation (Appendix).

**Measurement Reliability**

*Pilot coding.*

In content analysis, reliability is assessed by intercoder reliability (also known as inter-rater reliability), which is the level of agreement between two or more coders when coding a particular variable (Neuendorf, 2002; Riffe, Lacy, & Fico, 1998). Prior to coding the articles to be analyzed for this dissertation, intercoder reliability was assessed by pilot coding newspaper articles identified with the keywords used in this research, but from an earlier time period than the articles included in this research. The Researcher and an assistant would each code several of the same articles using the coding instrument, intercoder reliability would be calculated, and items for which coders disagreed would be discussed and the instrument would be adjusted, or the instructions for coders would be refined. The instrument was tested again with a new set of articles, and this procedure continued until a final instrument with an acceptable level of intercoder reliability was developed. The pilot coding process allowed for the clarification of variable categories, the expansion of variable categories, and the addition of variables to the instrument, making the instrument more comprehensive, and concurrently training the coders to code articles with this instrument.

Pilot coding for intercoder reliability was evaluated using percent agreement (also called simple agreement) and Cohen’s Kappa. Percent agreement is calculated by counting the number of times two or more coders code a variable the same way, then
dividing by the number of articles the coders coded. Cohen’s Kappa is a reliability statistic used for nominal level data, which calculates intercoder reliability while controlling for chance—that the coders would code a variable the same way by chance alone (Cohen, 1960). Kappa is calculated as follows:

\[ \kappa = \frac{(f_{AO} - f_{AE})}{(N - f_{AE})} \]

Key:

- \( f_{AO} \) = frequency of observed agreement
- \( f_{AE} \) = frequency of expected agreement
- \( N \) = total number of articles being tested for intercoder reliability

The kappa coefficient ranges from 0 to 1, and it can be positive or negative, ranging from perfect disagreement to perfect agreement (-1 to +1). A positive kappa coefficient represents the amount of coder agreement in excess of the amount of agreement that would be expected by chance. A kappa of zero represents intercoder agreement equal to chance (for example, chance dictates that 50% of the time two coders will code a dichotomous variable the same). A negative kappa represents the amount of coder agreement that is less than the amount of agreement that is expected by chance, and a variable with a negative kappa is of little use to a researcher (Cohen, 1960).

The interpretation of kappa coefficients is subjective, but a rating system put-forth by Landis and Koch (1977) is often referenced in literature. The interpretations of Cohen’s Kappa that Landis and Koch (1977, p. 165) provide are:

- Less than zero = poor
- 0.0 to 0.20 = slight
- 0.21 to 0.40 = fair
0.41 to 0.60 = moderate

0.61 to 0.80 = substantial

0.81 to 1.00 = almost perfect

The percent agreement and Cohen’s Kappa achieved on the pilot coding for this dissertation are presented in Table 2. Note that each category of the living arrangements variable is listed separately because living arrangements is a multiple choice variable, and therefore each category of the variable is entered into the database and evaluated as though each category is a separate variable.
Table 2. *Intercoder Reliability Pilot Test Results*

<table>
<thead>
<tr>
<th>Concept</th>
<th>Variable Name</th>
<th>Pilot 1 (n=6)</th>
<th>Pilot 2 (n=6)</th>
<th>Pilot 3 (n=12)</th>
<th>Pilot 4 (n=10)</th>
<th>All Pilots</th>
<th>Kappa (All)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectivity</td>
<td>Objectivity Index:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-site Professional</td>
<td>- -</td>
<td>58</td>
<td>60</td>
<td>68</td>
<td>0.374</td>
<td>0.069</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-site Professional</td>
<td>- -</td>
<td>75</td>
<td>80</td>
<td>77</td>
<td>0.495</td>
<td>0.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elder Layperson</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>1.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Layperson</td>
<td>83</td>
<td>100</td>
<td>75</td>
<td>90</td>
<td>85</td>
<td>0.267</td>
<td>0.126</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>- -</td>
<td>92</td>
<td>90</td>
<td>91</td>
<td>0.771</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>1.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculation</td>
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<td>92</td>
<td>100</td>
<td>95</td>
<td>0.891</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>Quality</td>
<td>33</td>
<td>33</td>
<td>75</td>
<td>60</td>
<td>56</td>
<td>0.298</td>
<td>0.004</td>
</tr>
<tr>
<td>Tone</td>
<td>Impression</td>
<td>83</td>
<td>67</td>
<td>75</td>
<td>60</td>
<td>71</td>
<td>0.517</td>
<td>0.0</td>
</tr>
<tr>
<td>Topics</td>
<td>Theme</td>
<td>83</td>
<td>33</td>
<td>50</td>
<td>60</td>
<td>56</td>
<td>0.441</td>
<td>0.088</td>
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<tr>
<td>Living Arrangement:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>independent at home</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>family caregiver</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>home health aide</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>90</td>
<td>90</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>rehab center</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>90</td>
<td>90</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>nursing home</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>assisted living facility</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>senior housing</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>90</td>
<td>90</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>retirement community</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>hospice</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>1.0</td>
<td>0.002</td>
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<td>unspecified</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>90</td>
<td>90</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>90</td>
<td>90</td>
<td>0.615</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>100</td>
<td>100</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

- - = Variable not present on the instrument for this pilot test.
n/a = Cohen's Kappa cannot be calculated due to a constant.
Occasionally, a high percent agreement between coders produces a low kappa; such is the case for the variable, “other layperson” in Table 2. Also, the presence of a constant, whereby a coder assigns the same code to all cases of a variable, will prevent the calculation of kappa. For these reasons, two measures of reliability, percent agreement and Cohen’s Kappa, are presented in Table 2.

A high percent agreement with a low kappa occurs when most of the intercoder agreement falls into one category, such as coder 1 and coder 2 scoring 28 out of 34 articles “zero” on the “other layperson” variable. Although the coders agreed on the scoring of 29 out of 34 articles (they also both scored 1 out of 34 articles “one” on the “other layperson” variable), the disproportionate number of agreements on the “zero” answer category, referred to as a problem of prevalence, is problematic for the Cohen’s Kappa formula, and results in a kappa that is not representative of the true agreement on a variable (Banerjee, Capozzoli, McSweeney, & Sinha, 1999; Byrt, Bishop, & Carlin, 1993; Feinstein & Cicchetti, 1990; Hoehler, 2000; Morris et al., 2008; Neuendorf, 2002; Schneider, 2009; Vach, 2005).

On the majority of answer categories for the living arrangements variable, kappa could not be calculated due to a constant. The presence of a constant occurs when a coder assigns the same code to a variable for every article; for example, on the “living arrangements: home health aide” variable, coder 2 coded each article in the pilot test zero (a “No” response). If on the same variable, the other coder uses more than this single code, kappa cannot be calculated because it appears as though the coders used different scales to code the variable (Lombard, Snyder-Duch, & Bracken, 2003). To explain why this creates a problem for kappa, the Researcher calculated kappa for the problematic
variables, compared the resulting formulas and tables, and learned that the presence of a constant (by one or both coders) on a dichotomous variable in the instrument creates a contingency table where at least one marginal is zero. When at least one marginal is zero, the observed frequencies and the expected frequencies in the agreement diagonal on the contingency table are equal, therefore, $f_{AO} - f_{AE}$ (the numerator in the kappa formula) equals zero, and this prohibits the calculation of kappa.

The living arrangements variable was added later in the instrument development, and was therefore pilot coded on fewer articles than the other variables in this dissertation. The lower sample size for the pilot coding of the living arrangements variable reduced the opportunities for coders to assign different categories to a variable, and thus prevented the computation of kappa. For example, on the living arrangements: home health aide variable, 10 articles underwent pilot coding, and coders had 90% simple agreement, but kappa could not be calculated because there was no variability in the way coder 2 scored this variable. The high percent agreement on the living arrangements variable gives confidence in the coding of this variable, and it is predicted that the greater number of articles that will be coded for intercoder reliability on the final dataset will provide variability in the data that will allow kappa to be calculated on this variable.

**Intercoder reliability for final dataset.**

Intercoder reliability was assessed for 10% of the dataset (34 of 343 articles), as per the commonly suggested amount of articles to code for reliability (Neuendorf, 2002; Elder, Pavalko, & Clipp, 1993). The articles used for intercoder reliability on the final dataset were selected using a random number table (McCall, 1990, p. 428).
The random number table contained 10 columns of numbers. Each column had 50 rows of numbers, and each row was 10 numbers long. A die was rolled to determine which column of the random number table to use to start the selection of articles for intercoder reliability; the die determined that selection would begin in the second column. Because the dataset is comprised of hundreds of articles ($N = 343$), the first three numbers in each row of the second column, representing numbers through the hundreds, 0 to 999, were read from the top of the column to the bottom of the column, and the first occurrence of each number that fell between 1 and 343 was written down on a separate piece of paper. When the bottom of the column was reached, the Researcher began at the top of the same column, but read down the next three numbers in each row until 34 numbers between 0 and 343 were identified (any number was recorded only once, duplicates of numbers already written down were ignored).

The numbers recorded from the random number table were then used to identify row numbers in the SPSS database containing all of the articles for this dissertation. The articles that corresponded to the 34 row numbers identified by the random number table were coded by a second coder, and compared to the codes of the first coder who coded the articles in the final dataset, using percent agreement and kappa to calculate intercoder reliability. The order in which the numbers appeared in the random number table was the order in which the intercoder reliability articles were identified and coded.

Results of the intercoder reliability on the final dataset are presented in Table 3. All of the variables except quality and senior housing had substantial or almost perfect reliability as defined by Landis and Koch’s (1977) interpretation of kappa scores. The
quality and senior housing variables obtained moderate reliability, which is still an acceptable level of reliability.
Table 3. *Intercoder Reliability, n = 34*

<table>
<thead>
<tr>
<th>Concept</th>
<th>Variable</th>
<th>Percent Agreement</th>
<th>Kappa*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectivity</td>
<td>Objectivity Index</td>
<td>88</td>
<td>.887</td>
</tr>
<tr>
<td><strong>Components of Objectivity Index:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on-site professional</td>
<td></td>
<td>94</td>
<td>.766</td>
</tr>
<tr>
<td>off-site professional</td>
<td></td>
<td>88</td>
<td>.757</td>
</tr>
<tr>
<td>elder layperson</td>
<td></td>
<td>94</td>
<td>.821</td>
</tr>
<tr>
<td>other layperson</td>
<td></td>
<td>94</td>
<td>.719</td>
</tr>
<tr>
<td>count</td>
<td></td>
<td>100</td>
<td>1.000</td>
</tr>
<tr>
<td>money</td>
<td></td>
<td>100</td>
<td>1.000</td>
</tr>
<tr>
<td>calculation</td>
<td></td>
<td>97</td>
<td>.937</td>
</tr>
<tr>
<td>Quality</td>
<td>Quality</td>
<td>76</td>
<td>.505</td>
</tr>
<tr>
<td>Time</td>
<td>Time Period</td>
<td>100</td>
<td>1.000</td>
</tr>
<tr>
<td>Tone</td>
<td>Impression</td>
<td>82</td>
<td>.689</td>
</tr>
<tr>
<td>Topics</td>
<td>Theme</td>
<td>97</td>
<td>.962</td>
</tr>
<tr>
<td>Living Arrangement Index</td>
<td></td>
<td>97</td>
<td>.956</td>
</tr>
<tr>
<td><strong>Components of Living Arrangement Index:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>independent at-home</td>
<td></td>
<td>97</td>
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</tr>
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<td>family caregiver</td>
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<td>.767</td>
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<td>home health aide</td>
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<td>.767</td>
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<td>97</td>
<td>.785</td>
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<td>nursing home</td>
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<td>100</td>
<td>1.000</td>
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<td>assisted living facility</td>
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<td>hospice</td>
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<td>other</td>
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<td>91</td>
<td>.622</td>
</tr>
<tr>
<td>none</td>
<td></td>
<td>100</td>
<td>1.000</td>
</tr>
</tbody>
</table>

n/a = Cohen's Kappa cannot be calculated due to a constant.

* p < .01
Data Collection

All articles that were identified through keywords and hand sorting for inclusion in the final sample for this dissertation were read and coded by one coder using the data collection instrument designed for this study ($N = 343$). It was learned during the pilot coding of the instrument that coder accuracy declined after coding five articles in a sitting. For example, a coder might fail to code one or more items on the instrument when coding the sixth or seventh (or greater) article in a sitting. To reduce the potential for missing data, and inaccuracies in data that are not as easily assessed as missing data, the coder was limited to coding five articles per day. Thus, for coding the final dataset, the coder was provided with five articles, five codesheets (the data collection instrument), and an instruction sheet that clarified each item on the instrument, on each day that the coder was available to code articles.

Subject Cooperation and Human Subjects Issues

There are no human or animal subjects in this research; therefore, review by the Institutional Review Board was not necessary.

Analysis Plan

The final sample contained 343 articles. There were 170 articles from The Daily Gazette (49.6% of the sample), 13 from The Saratogian (3.8% of the sample), 136 from the Times Union (39.7% of the sample), and 24 from The Troy Record (7.0% of the sample). Data collected on articles from the four newspapers were analyzed and reported
in the aggregate. There are two reasons for this; first, the small number of articles from *The Saratogian* and *The Troy Record* discourage comparisons with the other newspapers for which many more articles were identified for this research. Second, *The Daily Gazette* and the *Times Union* produce editions for all counties within the Capital Region, all of which have been included in this research, rather than only serving the county in which each newspaper makes its primary affiliation, as done by *The Saratogian* and *The Troy Record*; therefore, analyzing differences in the four newspapers would not be representative of differences in information disseminated to the four counties by the newspapers, hence, the most useful analysis results from conducting aggregate analyses to present a complete picture of the Capital Region.
Chapter 3.

Results

The sampling frame included all articles from the four Capital Region newspapers that addressed living arrangements or long term care for older adults published during three time periods. A filter was applied to the dataset of 343 articles, which excluded articles that did not substantially address older adult care, but had not been identified in earlier screenings of the articles. The filter was based on the coding of two variables. First, any article coded “No” for the variable “Include Article in Study,” was removed because this code signified that the article did not contain information about older adult care. Second, articles coded in the “None” category for the variable that identified the types of living arrangements that were presented in an article were excluded because these articles did not identify an older adult living arrangement which is of interest to this study. This left 284 articles for the analysis of most variables, and 282 articles for analyses using the variable that classified articles into broad categories of an article’s theme.

Variables were analyzed according to their level of measurement and the research question tested. Statistical analyses performed on pairs of variables were Pearson’s chi-square test of independence, and one-way analysis of variance (ANOVA). Pearson’s chi-square was used on pairs of categorical variables, and one-way ANOVA was used on variable pairs where one variable was continuous. A summary of research questions and analyses is presented in Table 4.
Table 4. Research Questions and Analyses

<table>
<thead>
<tr>
<th>RQ number</th>
<th>Main research question and variables of subquestions</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1</td>
<td>Are topics presented with quality information from the media about care for older adults?</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Quality and theme</td>
<td>Chi-square</td>
</tr>
<tr>
<td>1.2</td>
<td>Quality and living arrangement</td>
<td>Chi-square</td>
</tr>
<tr>
<td>RQ2</td>
<td>Are topics presented in an objective manner with respect to care for older adults?</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Objectivity and theme</td>
<td>ANOVA</td>
</tr>
<tr>
<td>2.2</td>
<td>Objectivity and living arrangement</td>
<td>ANOVA</td>
</tr>
<tr>
<td>RQ3</td>
<td>Does the tone of articles about care for older adults vary from topic to topic?</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Tone and theme</td>
<td>Chi-square</td>
</tr>
<tr>
<td>3.2</td>
<td>Tone and living arrangement</td>
<td>Chi-square</td>
</tr>
<tr>
<td>RQ4</td>
<td>Did coverage of older adult care change as more baby boomers reached age 55 between the years 2001 and 2004?</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Theme and time period</td>
<td>Chi-square</td>
</tr>
<tr>
<td>4.2</td>
<td>Living arrangement and time period</td>
<td>Chi-square</td>
</tr>
<tr>
<td>4.3</td>
<td>Quality and time period</td>
<td>Chi-square</td>
</tr>
<tr>
<td>4.4</td>
<td>Objectivity and time period</td>
<td>ANOVA</td>
</tr>
<tr>
<td>4.5</td>
<td>Tone and time period</td>
<td>Chi-square</td>
</tr>
</tbody>
</table>

For any statistically significant results, a qualitative analysis of articles was performed to identify commonalities that help explain the results. For example, when a
cell in a chi-square contributes to a statistically significant chi-square, the Researcher returned to that grouping of articles, reread and summarized each article, and looked for commonalities within that group of articles that were present in at least half of the articles in that grouping, and to ensure the commonality that was identified could be used to explain a finding, and that the commonality was not present in other article groupings, the Researcher reread, summarized, and looked for commonalities within all of the other groups to which the findings for the original cell were compared.

**Descriptives**

Frequency counts were run on all variables analyzed in this dissertation. This served two purposes. First, this is the process of data cleaning that allows the researcher to identify if information is missing from the dataset, to possibly identify if some data may have been miscoded, and to determine if there are enough cases in each answer category to allow the proposed analyses to be performed on the variables. The dataset contained no missing information, nor any unacceptable codes, and the sample was large enough to conduct the proposed analysis.

Second, the frequency counts of variables assessed with the coding instrument provided a summary of the data, which is presented in Table 5. As seen in Table 5, the greatest percentage of articles were in the people theme, which were articles containing information about the social experiences or concerns of older adults. The next highest percentage of articles were about healthcare systems which were articles about hospitals,  

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6 The appropriate sample sizes were identified from a power analysis presented later in this chapter.
nursing homes, and other large institutions regarding policies, programs, and staffing. Healthcare costs was the next most common theme, and contained articles about Medicare, Medicaid, private pay health insurance, health maintenance organizations (HMOs), long term care insurance, prescription costs, and financial issues related to healthcare organizations and institutions such as hospitals, nursing homes, rehabilitation centers, and homecare agencies.

Table 5 also shows that the majority of articles in the sample portrayed institutional living arrangements, typically nursing home living. Most articles had good quality of information, yet over half were in the lower range of the objectivity index (58%). A small percentage of articles in the study conveyed a positive tone toward older adult care, but most conveyed a neutral or negative impression. The coverage of older adult care declined between 2001 and 2004. The first time period contained the most articles, and the number of articles decreased with each subsequent time period, even though more baby boomers became 55 years old in later years.
Table 5. Frequencies and Percentages of Variable Categories

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme $N = 282$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare Costs</td>
<td>56</td>
<td>20%</td>
</tr>
<tr>
<td>People</td>
<td>73</td>
<td>26%</td>
</tr>
<tr>
<td>Elder Risk</td>
<td>37</td>
<td>13%</td>
</tr>
<tr>
<td>Government Policies</td>
<td>33</td>
<td>12%</td>
</tr>
<tr>
<td>Health and Disease</td>
<td>17</td>
<td>6%</td>
</tr>
<tr>
<td>Healthcare Systems</td>
<td>66</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Living Arrangements $N = 284$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>74</td>
<td>26%</td>
</tr>
<tr>
<td>Institution</td>
<td>147</td>
<td>52%</td>
</tr>
<tr>
<td>Combination</td>
<td>63</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Quality of Information $N = 284$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td>39</td>
<td>14%</td>
</tr>
<tr>
<td>Neutral</td>
<td>40</td>
<td>14%</td>
</tr>
<tr>
<td>Good</td>
<td>205</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Objectivity Index $N = 284$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - None</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>1 - Very Low</td>
<td>22</td>
<td>8%</td>
</tr>
<tr>
<td>2 - Low</td>
<td>70</td>
<td>25%</td>
</tr>
<tr>
<td>3 - Low - Medium</td>
<td>70</td>
<td>25%</td>
</tr>
<tr>
<td>4 - High - Medium</td>
<td>66</td>
<td>23%</td>
</tr>
<tr>
<td>5 - High</td>
<td>44</td>
<td>15%</td>
</tr>
<tr>
<td>6 - Very High</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>7 - Extremely High</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Tone of Information $N = 284$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>111</td>
<td>39%</td>
</tr>
<tr>
<td>Neutral</td>
<td>115</td>
<td>41%</td>
</tr>
<tr>
<td>Positive</td>
<td>58</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Time Period $N = 284$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>114</td>
<td>40%</td>
</tr>
<tr>
<td>2003</td>
<td>88</td>
<td>31%</td>
</tr>
<tr>
<td>2004</td>
<td>82</td>
<td>29%</td>
</tr>
</tbody>
</table>
Research Questions with Analysis

Research Question 1: Quality of Older Adult Care Topics

Are topics presented with quality information from the media about care for older adults? (Variables: quality; theme; living arrangement.) This broad research question is answered with the following subquestions.

Research question 1.1: Quality of older adult care themes.

Is the quality of information contained in an article comparable for each article theme? (Variables: quality; theme.)

\[ H_0 \text{ (null hypothesis): There is no relationship between theme and quality.} \]

\[ H_a \text{ (alternative hypothesis): There is a relationship between theme and quality.} \]

Using quality as the dependent variable, a Pearson chi-square test of independence was performed upon the quality variable and the theme variable to determine if there was a statistically significant difference in the articles rated bad, neutral, and good quality for each category of the theme variable.

Table 6 presents the contingency table for quality by theme upon which Pearson’s chi-square test of independence was performed. The expected cell count in four of the cells is less than five, which violates the general rule that no more than 20% of cells in a contingency table [that is larger than a 2x2 table] have expected cell counts less than five.\(^7\) However, according to Fienberg’s (1980) and Hinkle, Wiersma, and Jurs’ (1998) reviews of empirical research on the accuracy of chi-square statistics when more than

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\(^7\) The general rule for a 2x2 table is that no cells have expected counts less than five.
20% of expected cell counts are less than five found that the chi-square statistic was accurate under these circumstances provided that the expected cell counts were greater than or equal to one. All of the expected cell counts in Table 6 that are less than five, are greater than one; therefore it is acceptable to interpret the results of this chi-square analysis (G. Deane, personal communication, January 27, 2011; Fienberg, 1980; Hinkle, Wiersma, & Jurs, 1998).

**Table 6. Crosstabulation for Quality of Information by Theme of Article**

<table>
<thead>
<tr>
<th>Quality</th>
<th>Healthcare</th>
<th>Elder</th>
<th>Govt.</th>
<th>Health &amp; Disease</th>
<th>Healthcare Systems</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Costs</td>
<td>People</td>
<td>Risk</td>
<td>Policies</td>
<td>Disease</td>
<td>Systems</td>
</tr>
<tr>
<td>Bad</td>
<td>Observed</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>7.7</td>
<td>10.1</td>
<td>5.1</td>
<td>4.6</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>% within Theme</td>
<td>12.5%</td>
<td>6.8%</td>
<td>18.9%</td>
<td>12.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>-0.3</td>
<td>-2.0</td>
<td>1.0</td>
<td>-0.3</td>
<td>-1.7</td>
</tr>
<tr>
<td>Neutral</td>
<td>Observed</td>
<td>4</td>
<td>21</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>7.9</td>
<td>10.4</td>
<td>5.2</td>
<td>4.7</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>% within Theme</td>
<td>7.1%</td>
<td>28.8%</td>
<td>5.4%</td>
<td>15.2%</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>-1.7</td>
<td>4.1</td>
<td>-1.6</td>
<td>0.2</td>
<td>-0.3</td>
</tr>
<tr>
<td>Good</td>
<td>Observed</td>
<td>45</td>
<td>47</td>
<td>28</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>40.3</td>
<td>52.5</td>
<td>26.6</td>
<td>23.8</td>
<td>12.2</td>
</tr>
<tr>
<td></td>
<td>% within Theme</td>
<td>80.4%</td>
<td>64.4%</td>
<td>75.7%</td>
<td>72.7%</td>
<td>88.2%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>1.6</td>
<td>-1.7</td>
<td>0.5</td>
<td>0.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>Observed</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>33</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>33</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>% within Theme</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
A statistically significant association was found between an article’s theme and its quality of information ($\chi^2 (10, N = 282) = 29.230, p = .001$), therefore, the null hypothesis that the quality and theme variables are independent is rejected, and the alternative hypothesis that the variables are dependent, that there is a relationship between the two variables, is accepted.

The specific relationships that exist between theme and quality are identifiable with the conditional distributions and adjusted residuals, which are presented in Table 6. An adjusted residual is a measure of how much an observed cell count deviates from the expected cell count, while also accounting for the overall sample size. Adjusted residuals that are equal to or greater than 1.96 are considered to be major contributors to a significant chi-square value (G. Deane, personal communication, January 27, 2011; Haberman 1973; Hinkle, Wiersma, and Jurs, 1998).

In the quality by theme crosstabulation, most articles had good quality of information, with 64% to 88% of articles in each theme being coded as having good quality; they presented both sides of an issue, provided helpful information, or presented multiple facts. However, people articles and healthcare systems articles had fewer good quality articles than expected (the marginal for the row representing good quality shows that 72% of articles in each theme category were expected to be good quality). The adjusted residuals for these themes (people and healthcare systems) are not significant for the good level of the dependent variable, but they are significant on the bad and neutral levels.

The adjusted residuals show that significantly fewer than expected people articles presented bad quality of information, and significantly greater than expected healthcare
systems articles presented bad quality of information. The other themes represented in the articles had similar observed and expected cell counts for the bad category of the quality variable, and two of these themes (government policies, and health and disease) had expected cell counts less than five.

There was one significant adjusted residual for the neutral category of the dependent variable; it showed that significantly more people articles than expected provided neutral quality of information, meaning they lacked useful information or were unremarkable. People articles also had the greatest percentage of articles with neutral quality. The people theme contains articles that are about the social experiences, contributions, or concerns of older adults, and the Researcher originally believed a higher proportion of people articles may be classified neutral than other themes because these articles may be humanistic stories that are meant to inspire rather than inform the reader. However, upon returning to these articles and reviewing their content, it was learned that these articles were not inspiring stories, but that most of these articles were ones that implied they would provide useful information from the headline, about things such as financing retirement and where to live in retirement, but failed to do so in the text of the article. The percentage of neutral quality articles was near to what was expected for each of the remaining themes, with elder risk articles having the lowest percentage of neutral quality articles. The government policies theme and the health and disease theme again had cell counts less than five.

The statistically significant chi-square and the high adjusted residuals allows the researcher to predict that among the article themes, articles with a people theme are the
least likely to be bad quality, and are the most likely to be neutral quality; and articles with a healthcare systems theme have the highest chance of being bad quality articles.

Healthcare systems themed articles that were about policies, programs, and staffing in large institutions such as hospitals and nursing homes were mostly good quality, but they had the highest likelihood of giving bad quality information by presenting information in a way that was misleading, hurtful, or biased. This finding, however, can be attributed to articles written about a nursing strike and union negotiations occurring at a local nursing home in 2003, and therefore is not a generalizable tendency for articles about healthcare systems to have more bad quality articles than expected.

Research question 1.2: Quality of older adult care living arrangements.

Is the quality of information contained in an article comparable for each type of living arrangement? (Variables: quality; living arrangement.)

$H_0$: There is no relationship between living arrangement and quality.

$H_a$: There is a relationship between living arrangement and quality.

Using quality as the dependent variable, a Pearson chi-square test of independence was performed upon the quality variable and the living arrangement variable to determine if there was a statistically significant difference in the quality of articles about community-based living arrangements, institution-based living arrangements, and articles that feature a combination of community-based and institution-based living arrangements.

The contingency table for quality by living arrangement upon which Pearson’s chi-square test of independence was performed appears in Table 7.
Table 7. Crosstabulation for Quality of Information by Living Arrangement in Article

<table>
<thead>
<tr>
<th>Quality</th>
<th>Living Arrangement</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Community</td>
<td>Institution</td>
<td>Combination</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td>Observed</td>
<td>7</td>
<td>25</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>10.2</td>
<td>20.2</td>
<td>8.7</td>
<td>39.0</td>
</tr>
<tr>
<td></td>
<td>% within Living Arrangement</td>
<td>9.5%</td>
<td>17.0%</td>
<td>11.1%</td>
<td>13.7%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>-1.2</td>
<td>1.7</td>
<td>-0.7</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>Observed</td>
<td>16</td>
<td>19</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>10.4</td>
<td>20.7</td>
<td>8.9</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>% within Living Arrangement</td>
<td>21.6%</td>
<td>12.9%</td>
<td>7.9%</td>
<td>14.1%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>2.2</td>
<td>-0.6</td>
<td>-1.6</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>Observed</td>
<td>51</td>
<td>103</td>
<td>51</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>53.4</td>
<td>106.1</td>
<td>45.5</td>
<td>205.0</td>
</tr>
<tr>
<td></td>
<td>% within Living Arrangement</td>
<td>68.9%</td>
<td>70.1%</td>
<td>81.0%</td>
<td>72.2%</td>
</tr>
<tr>
<td></td>
<td>Adjusted Residual</td>
<td>-0.7</td>
<td>-0.8</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Observed</td>
<td>74</td>
<td>147</td>
<td>63</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>74</td>
<td>147</td>
<td>63</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>% within Living Arrangement</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The resulting chi-square is not greater than or equal to 9.488, the critical value\(^8\) for a chi-square with 4 df at \(\alpha = 0.05\); therefore, a statistically significant association was not found between the living arrangements presented in an article and the article’s quality.

\(^8\) The critical value for a chi-square is available from a critical value table that is published in many textbooks on statistics. The table used in this dissertation is on page 638 of Hinkle, Wiersma, and Jurs (1998).
of information \( \chi^2 (4, N = 284) = 8.134, p = .087 \). The null hypothesis that the quality variable and the living arrangement variable are independent failed to be rejected; and it is therefore concluded that the quality of information in articles about older adult care is unrelated to the living arrangements presented in the articles.

**Research Question 2: Objectivity of Older Adult Care Topics**

Are topics presented in an objective manner with respect to care for older adults? (Variables: objectivity index; theme; living arrangements.) This broad research question is answered with the following subquestions.

**Research question 2.1: Objectivity of older adult care themes.**

Is objectivity comparable for each article theme? (Variables: objectivity index; theme.)

\( H_0 \): The objectivity index scores do not differ by theme of article.

\( H_a \): At least one mean objectivity index score differs from the mean objectivity index scores on the remaining article themes.

Using objectivity as the dependent variable and theme as the independent variable, a one-way ANOVA was performed to determine if there is a statistically significant difference in the articles rated 0 through 7 on the objectivity index for each category of the theme variable.

The mathematical formula for a one-way ANOVA is:

\[
F = \frac{MS_{Between}}{MS_{Within}}
\]

The key for the symbols in the ANOVA formula is:
\( MS_{\text{Between}} \) (mean square between) = variance estimate for the mean objectivity scores for the theme categories from the mean objectivity score for all themes. (The grand mean (the mean objectivity score for all themes) is subtracted from each group mean (the mean objectivity score for each theme category), and each difference is squared. The deviation squared for each group is multiplied by the number of cases in its corresponding group, then these products are added together and form the between groups sum of squares. The \( MS_{\text{Between}} \) is calculated by dividing the between groups sum of squares by the degrees of freedom for \( MS_{\text{Between}} \).

\( MS_{\text{Within}} \) (mean square within) = variance estimate of objectivity scores within each theme category. (The mean objectivity score for a group (a group is a level of the independent variable) is subtracted from each score within that group, and each difference is squared. The squares within each group are added together, then the sum of squares for each group are added together for the within groups sum of squares. The \( MS_{\text{Within}} \) is calculated by dividing the within groups sum of squares by the degrees of freedom for \( MS_{\text{Within}} \).

df = degrees of freedom = \( K - 1 \) for \( MS_{\text{Between}} \) and \( N - K \) for \( MS_{\text{Within}} \)

\( K = \) number of groups (levels of the independent variable) (\( K = 6 \))

\( N = \) number of articles in the total sample (\( N = 282 \))
Table 8. ANOVA for Objectivity by Theme of Article

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>36.793</td>
<td>5</td>
<td>7.359</td>
<td>4.455</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>455.831</td>
<td>276</td>
<td>1.652</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>492.624</td>
<td>281</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The resulting ANOVA is greater than 2.246714 (the critical value for an ANOVA with six groups at a .05 alpha level and \( df = 5 \) and 276\(^9\)), therefore, the null hypothesis that the objectivity score is the same for all of the theme categories is rejected, and the alternative hypothesis that the objectivity scores are not equal, that there is a difference in the objectivity scores of various themes, is accepted. Table 9 presents the mean objectivity index score and the standard deviation for each theme category.

Table 9. Average Objectivity Score and Standard Deviation for Article Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>( M )</th>
<th>( SD )</th>
<th>( n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare Costs</td>
<td>3.63</td>
<td>1.137</td>
<td>56</td>
</tr>
<tr>
<td>People</td>
<td>3.53</td>
<td>1.375</td>
<td>73</td>
</tr>
<tr>
<td>Elder Risk</td>
<td>2.78</td>
<td>1.272</td>
<td>37</td>
</tr>
<tr>
<td>Government Policies</td>
<td>3.03</td>
<td>1.311</td>
<td>33</td>
</tr>
<tr>
<td>Health and Disease</td>
<td>3.71</td>
<td>1.572</td>
<td>17</td>
</tr>
<tr>
<td>Healthcare Systems</td>
<td>2.86</td>
<td>1.214</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>3.25</td>
<td>1.324</td>
<td>282</td>
</tr>
</tbody>
</table>

\(^9\) Critical values for one-way ANOVAs were obtained from http://www.danielsoper.com/statcalc/calc04.aspx
The objectivity level varied across article themes, with the average objectivity score in the sample being 3.25. Three article themes had objectivity scores higher than the overall average: health and disease ($M = 3.71$), containing articles about maintaining health, and diseases or chronic conditions affecting older adults; healthcare costs ($M = 3.63$), containing articles about government sponsored and private health insurance, prescription costs, and financial issues faced by healthcare organizations; and people ($M = 3.53$), containing articles about the social experiences and the daily lives of older adults.

Three article themes had average objectivity scores lower than the overall average: government policies ($M = 3.03$), which contained articles about changes in governmental policy affecting national, state, or local institutions and laws; healthcare systems ($M = 2.86$), which contained articles about changes in the policies, programs, and staffing of healthcare institutions and systems; and elder risk ($M = 2.78$), which contained articles about older adults who are at risk of illness, isolation, crime, and poverty, and articles about older adults that have been physically, emotionally, or financially abused.

In order to determine which article theme(s) had an objectivity index score that had a statistically significant difference from other article themes, post hoc multiple comparisons were performed on the data using Bonferroni testing. Statistically significant differences were found between two of the themes that had a higher mean objectivity score than the overall sample, and two of the article themes having a lower mean objectivity score than the overall sample. Articles with a healthcare costs theme had greater objectivity than articles about elder risk ($p = .033$), and articles with a healthcare costs theme had greater objectivity than articles about healthcare systems ($p = .019$).
Articles with a people theme also had greater objectivity than articles about healthcare systems ($p = .035$).

The difference between the high objectivity healthcare costs articles and the low objectivity elder risk or low objectivity healthcare systems articles is that the high objectivity articles tend to include references to an off-site professional, money, or calculations, but the low objectivity articles do not include these references; and the high objectivity people articles are more likely to reference an off-site professional, elder layperson, money, or a calculation, than low objectivity healthcare systems articles. Therefore, low objectivity articles may be improved by incorporating more elements of the objectivity index into the articles. For example, low objectivity healthcare systems articles are typically about nursing homes, with many of those articles being about nursing strikes and union negotiations in local nursing homes. To improve the objectivity of these articles, reporters could include a reference to a report or an interview with a professional not affiliated with the local nursing homes that provides insight into the potential effects of a nursing strike on the residents of nursing homes (an off-site professional reference); reporters could provide the average salary that nurses currently earn in nursing homes (as a money reference); and reporters could identify the percent of staff that have left their nursing home duties to participate in the strike (a calculation reference).

---

10 Variable definitions for these elements of the objectivity index are contained in Chapter 2.
Research question 2.2: Objectivity of older adult care living arrangements.

Is objectivity comparable for each type of living arrangement? (Variables: objectivity index; living arrangement.)

\( H_0 \): The objectivity index scores do not differ by type of living arrangement.

\( H_a \): The objectivity of at least one type of living arrangement differs from the objectivity of all other types.

Using objectivity as the dependent variable and living arrangement as the independent variable, a one-way ANOVA was performed to determine if there is a statistically significant difference in the articles rated 0 through 7 on the objectivity index for the three categories of the living arrangement variable (community based, institution based, or a combination of community and institution based living arrangements).

Table 10. ANOVA for Objectivity by Living Arrangement in Article

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>38.990</td>
<td>2</td>
<td>19.495</td>
<td>11.954</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>458.260</td>
<td>281</td>
<td>1.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>497.250</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The resulting ANOVA is greater than 3.027898 (the critical value for an ANOVA with three groups at a .05 alpha level and \( df = 2 \) and 281), therefore, the null hypothesis that the objectivity score is the same for the three categories of the living arrangement variable is rejected, and the hypothesis that the objectivity score differs across the three categories of the living arrangement variable is accepted. Table 11 presents the mean objectivity index score and the standard deviation for each living arrangement.
Two of the living arrangements presented in the articles had a higher mean objectivity score than the mean objectivity score for all articles ($M = 3.25$); articles presenting a community living arrangement such as older adults living at home with or without assistance, or living in a community designed for independent older adults or those needing minimal assistance, had a $3.54$ mean objectivity score, and articles presenting a combination of community and institution living arrangements achieved the highest mean objectivity score ($M = 3.73$). One type of living arrangement, institution living arrangements, about living quarters such as nursing homes, assisted living facilities, or rehabilitation centers, had a lower mean objectivity score ($M = 2.90$) than the overall mean objectivity score.

In order to determine which living arrangement(s) had an objectivity index score that differed significantly from other types of living arrangements, post hoc multiple comparisons were performed on the data using Bonferroni testing. Statistically significant differences were found between each of the two living arrangements that scored highest on the objectivity index, and the living arrangement that scored lowest on the objectivity index. Articles presenting a community living arrangement had greater objectivity than articles presenting an institution living arrangement ($p = .001$), and articles presenting a

<table>
<thead>
<tr>
<th>Living Arrangement</th>
<th>$M$</th>
<th>$SD$</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>3.54</td>
<td>1.326</td>
<td>74</td>
</tr>
<tr>
<td>Institution</td>
<td>2.90</td>
<td>1.226</td>
<td>147</td>
</tr>
<tr>
<td>Combination</td>
<td>3.73</td>
<td>1.334</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>3.25</td>
<td>1.326</td>
<td>284</td>
</tr>
</tbody>
</table>
combination living arrangement had greater objectivity than articles presenting an institution living arrangement ($p < .001$).

The objectivity index gauges the amount of different sources and types of information that a journalist includes in an article, with more sources and types of information conveying greater objectivity. The articles about community and combination living arrangements, on average, provide the reader with information from three or more different sources or types of information, deeming these articles as more informative, and appearing more factual (and hence objective) than articles with fewer than three source references or types of information, such as articles about institution living arrangements. Articles with few sources and types of information (such as articles about institution living arrangements, particularly nursing homes), potentially present a biased representation of a topic, which may lead to less informed decision making by the reader, and may lead the reader to believe that the information or opinions expressed in an article are representative of the community served by the newspaper (Mutz & Soss, 1997). Even if the information is from a minority viewpoint, repetition of information from that source, in the form of multiple articles, strengthens readers beliefs that this is the majority opinion in their community (Sheafer, 2007), therefore, readers of Capital Region newspapers are likely to believe that nursing homes are the typical living arrangement for older adults, and that the biased representation of nursing homes is the norm.
Research Question 3: Tone of Older Adult Care Topics

Does the tone of articles about care for older adults vary from topic to topic? (Variables: tone; theme; living arrangement.) This broad research question is answered with the following subquestions.

Research question 3.1: Tone of older adult care themes.

Is tone comparable for each article theme? (Variables: tone; theme.)

$H_0$: There is no relationship between theme and tone.

$H_a$: There is a relationship between theme and tone.

Using tone as the dependent variable, a Pearson chi-square test of independence was performed upon the tone variable and the theme variable to determine if there was a statistically significant difference in the articles rated positive, neutral, and negative for each category of the theme variable.

The contingency table for tone by theme upon which Pearson’s chi-square test of independence was performed is shown in Table 12.

11 The tone of an article is the immediate impression about older adult care that a reader has when he or she finishes reading an article. A positive tone provides a hopeful outlook or a favorable impression of older adult care. An article with a negative tone gives the reader an unfavorable impression of older adult care through misleading, hurtful, or stereotypical information. Articles with a neutral tone are those that present a mix of positive and negative impressions, or when a dominant negative or positive tone is absent from an article.
Table 12. Crosstabulation for Tone of Information by Theme of Article

<table>
<thead>
<tr>
<th>Tone</th>
<th>Health-care Costs</th>
<th>People</th>
<th>Elder Risk</th>
<th>Government Policies</th>
<th>Health and Disease</th>
<th>Health-care Systems</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>27</td>
<td>13</td>
<td>30</td>
<td>10</td>
<td>7</td>
<td>24</td>
<td>111</td>
</tr>
<tr>
<td>Expected</td>
<td>22.0</td>
<td>28.7</td>
<td>14.6</td>
<td>13.0</td>
<td>6.7</td>
<td>26.0</td>
<td>111.0</td>
</tr>
<tr>
<td>% within Theme</td>
<td>48.2%</td>
<td>17.8%</td>
<td>81.1%</td>
<td>30.3%</td>
<td>41.2%</td>
<td>36.4%</td>
<td>39.4%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>1.5</td>
<td>-4.4</td>
<td>5.6</td>
<td>-1.1</td>
<td>0.2</td>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>28</td>
<td>31</td>
<td>6</td>
<td>14</td>
<td>4</td>
<td>30</td>
<td>113</td>
</tr>
<tr>
<td>Expected</td>
<td>22.4</td>
<td>29.3</td>
<td>14.8</td>
<td>13.2</td>
<td>6.8</td>
<td>26.4</td>
<td>113.0</td>
</tr>
<tr>
<td>% within Theme</td>
<td>50.0%</td>
<td>42.5%</td>
<td>16.2%</td>
<td>42.4%</td>
<td>23.5%</td>
<td>45.5%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>1.7</td>
<td>0.5</td>
<td>-3.2</td>
<td>0.3</td>
<td>-1.4</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>1</td>
<td>29</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>12</td>
<td>58</td>
</tr>
<tr>
<td>Expected</td>
<td>11.5</td>
<td>15.0</td>
<td>7.6</td>
<td>6.8</td>
<td>3.5</td>
<td>13.6</td>
<td>58.0</td>
</tr>
<tr>
<td>% within Theme</td>
<td>1.8%</td>
<td>39.7%</td>
<td>2.7%</td>
<td>27.3%</td>
<td>35.3%</td>
<td>18.2%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-3.9</td>
<td>4.7</td>
<td>-2.9</td>
<td>1.0</td>
<td>1.5</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>33</td>
<td>17</td>
<td>66</td>
<td>282</td>
</tr>
<tr>
<td>Expected</td>
<td>56</td>
<td>73</td>
<td>37</td>
<td>33</td>
<td>17</td>
<td>66</td>
<td>282</td>
</tr>
<tr>
<td>% within Theme</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The chi-square shows that there is a significant relationship between tone and theme ($\chi^2 (10, N = 282) = 66.435, p < .001$), therefore, the null hypothesis that the tone and theme variables are independent is rejected, and the hypothesis that the variables are dependent, that there is a relationship between the two variables, is accepted.
Most articles in the sample projected a neutral or negative tone about older adult care and living arrangements for older adults. Healthcare costs, people, and elder risk themes contributed the most to the significant chi-square value.

Healthcare costs articles, about the costs associated with public and private health insurance plans, and financial issues related to healthcare organizations and institutions, were almost entirely neutral or negative tone, and almost equally divided between these two tone categories. Only one healthcare costs article conveyed a favorable impression of older adult care (2% of healthcare costs articles, adjusted residual = –3.9), making it the least likely theme to convey a positive tone.

Articles with a people theme, about the experiences or concerns of older adults, were least likely to have a negative tone that conveyed an unpleasant, stereotypical, or misleading impression of older adult care (18%), and the people theme had significantly fewer negatively toned articles than expected (adjusted residual = –4.4). People articles were more likely to convey a neutral or positive image. They had the highest percentage of positive articles (40%), significantly more positive articles than expected (adjusted residual = 4.7), and comprised half of the positive toned articles in the sample. The higher proportion of positive tone people articles may be explained by the definition of people themed articles to include feel-good, inspiring stories that would inherently promote a positive impression.

Unlike most article themes, that were most likely to have a neutral tone, articles having an elder risk theme, which are about older adults who are at risk of becoming victims (of crime, isolation, or poverty), or older adults that have been financially, physically, or emotionally abused or neglected (usually by someone they know, or by
self-neglect), had the highest proportion of negatively toned articles (81%), and had significantly more negatively toned articles than expected in the sample (adjusted residual = 5.6). Although some elder risk articles conveyed a neutral tone (16%), it was the least likely theme to do so, having significantly fewer neutral tone articles than the 40% of articles in each theme expected to be neutral tone (adjusted residual = –3.2). Only one elder risk article conveyed a positive tone (3%; adjusted residual = –2.9).

Half of the articles that were about older adults who had been victimized, or were at high risk of being victimized, and that gave an unfavorable impression of older adult care, were about inspections performed by the New York State Department of Health that resulted in citations being issued to local nursing homes for failure to comply with state or federal regulations, or the articles were about a federal report that summarized the nursing home inspections performed in all states over a two-year period.

Two-thirds of negative tone elder risk articles are about an institution setting. This could be explained by regular inspections of nursing homes by regulatory agencies that identify substandard care and environments, and the number of people working in, and visiting, institutional care centers that increases the likelihood that abuse or neglect will be witnessed and reported, compared to older adults living in the community who may be isolated and abused or neglected by friends or family members, where the opportunity to

\[\text{12} \] The distribution of articles in each theme showed that articles were most likely to have a neutral tone, unless their theme was elder risk, or health and disease which were most likely to convey a negative tone.
witness maltreatment is reduced, decreasing the likelihood of this being reported to a law enforcement or regulatory agency.

**Research question 3.2: Tone of older adult care living arrangements.**

Is tone comparable for each type of living arrangement? (Variables: tone; living arrangement.)

\[ H_0 : \text{There is no relationship between living arrangement and tone.} \]

\[ H_a : \text{There is a relationship between living arrangement and tone.} \]

Using tone as the dependent variable, a Pearson chi-square test of independence was performed upon the tone variable and the living arrangement variable to determine if there was a statistically significant difference in the tone of articles that portrayed a community-based living environment, an institution-based living environment, and a combination of community and institution-based living environments.

The contingency table for tone by living arrangement upon which Pearson’s chi-square test of independence was performed appears in Table 13.
Table 13. *Crosstabulation for Tone of Information by Living Arrangement in Article*

<table>
<thead>
<tr>
<th>Tone</th>
<th>Community</th>
<th>Institution</th>
<th>Combination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>26</td>
<td>68</td>
<td>17</td>
<td>111</td>
</tr>
<tr>
<td>Expected</td>
<td>28.9</td>
<td>57.5</td>
<td>24.6</td>
<td>111.0</td>
</tr>
<tr>
<td>% within Living Arrangement</td>
<td>35.1%</td>
<td>46.3%</td>
<td>27.0%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-0.8</td>
<td>2.6</td>
<td>-2.2</td>
<td></td>
</tr>
<tr>
<td><strong>Neutral</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>27</td>
<td>65</td>
<td>23</td>
<td>115</td>
</tr>
<tr>
<td>Expected</td>
<td>30.0</td>
<td>59.5</td>
<td>25.5</td>
<td>115.0</td>
</tr>
<tr>
<td>% within Living Arrangement</td>
<td>36.5%</td>
<td>44.2%</td>
<td>36.5%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-0.8</td>
<td>1.3</td>
<td>-0.7</td>
<td></td>
</tr>
<tr>
<td><strong>Positive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>21</td>
<td>14</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>Expected</td>
<td>15.1</td>
<td>30.0</td>
<td>12.9</td>
<td>58.0</td>
</tr>
<tr>
<td>% within Living Arrangement</td>
<td>28.4%</td>
<td>9.5%</td>
<td>36.5%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>2.0</td>
<td>-4.7</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>74</td>
<td>147</td>
<td>63</td>
<td>284</td>
</tr>
<tr>
<td>Expected</td>
<td>74</td>
<td>147</td>
<td>63</td>
<td>284</td>
</tr>
<tr>
<td>% within Living Arrangement</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The chi-square shows that there is a statistically significant relationship between tone and living arrangement ($\chi^2 (4, N = 284) = 24.460, p < .001$), therefore, the null hypothesis that the tone and living arrangement variables are independent is rejected, and the hypothesis that the variables are dependent, that there is a relationship between the two variables, is accepted.

The amount of articles with a neutral tone in each living arrangement category was consistent with the amount of articles predicted by the null hypothesis; however, the
adjusted residuals in Table 13 identify relationships between the categories of the living arrangement variable, and the negative and positive categories of the tone variable, that contribute to the statistically significant chi-square value.

Articles with a community living arrangement, that featured arrangements where an older adult lived at home or with family members, or in a community designed for senior citizens, usually conveyed an unfavorable impression toward older adult care (35%), a mix of positive and negative impressions toward care, or an indistinct impression of older adult care (37%), which conforms to the overall distribution of articles in the sample (there are no significant adjusted residuals); however these articles also portrayed older adult care with a positive tone more frequently than expected (28%; 2.0 adjusted residual). A comparative review of the community articles revealed that articles with a positive tone mainly provided information about affordable housing options and resources, and living on a fixed income during retirement, or examples of older adults working as volunteers and thus remaining a part of their community. The articles with a negative tone warned about scams and thefts that target seniors, but they also presented another perspective about older adults who desire to remain living at home into old age, which is the emotional, financial, and logistical difficulties that family caregivers and communities face when trying to accommodate and care for older adults when they begin to need assistance with daily activities. Although these articles conveyed a negative tone, they are an important complement to the community articles that presented a positive tone.

Articles about institutional living arrangements usually conveyed an unpleasant impression of older adult care (46%), a mix of positive and negative impressions, or an
indistinct impression toward older adult care (44%). These articles had the highest percentage of articles with a negative tone, and had significantly more negative tone articles than expected (adjusted residual = 2.6).

Articles that presented a combination of community and institution living arrangements contained the highest percentage of articles that provided useful information or a hopeful outlook (37%; adjusted residual = 3.6); they also contained the lowest percentage of articles that conveyed an unpleasant impression of older adult care (27%; adjusted residual = –2.2).

The adjusted residual was significant for each category of the living arrangement variable when articles had a positive tone. The institution category had fewer positive tone articles than expected, and had the lowest percentage of positive tone articles (10%). Community and combination articles exceeded the amount of expected positive tone articles. The combination living arrangement had the highest percentage of positive tone articles (37%), followed by the community living arrangement (28%).

**Research Question 4: Topics on Older Adult Care Presented Over Time**

Did coverage of older adult care change as more baby boomers reached age 55 between the years 2001 and 2004? (Variables: time period; theme; living arrangement; quality; objectivity index; tone.) This broad research question is answered with the following subquestions.

**Research question 4.1: Themes in older adult care over time.**

Does the theme of articles about older adult care differ from 2001 to 2003 to 2004? (Variables: theme; time period.)

\[ H_0 \]: There is no relationship between time period and theme.
$H_a$: There is a relationship between time period and theme.

A Pearson chi-square test of independence was performed on the theme variable and the time period variable, to determine if there was a statistically significant difference in the amount of articles about each theme, across time periods. Theme is the dependent variable and time period is the independent variable in this analysis.

The contingency table for theme by time period upon which Pearson’s chi-square test of independence was performed appears in Table 14.

The resulting chi-square was significant ($\chi^2 (10, N = 282) = 30.997, p = .001$), therefore, the null hypothesis that the theme and time period variables are independent is rejected, and the hypothesis that the variables are dependent, that there is a relationship between the two variables, is accepted. This implies that newspapers changed the focus of older adult care articles over time. People was the most frequent theme represented in the sample (26%), but within each time period, the people theme was only the most common theme for the first time period (30%). In the second time period, the highest percentage of articles had a healthcare systems theme (40%), and in the third time period, the highest percentage of articles had a healthcare costs theme (29%).
Table 14. **Crosstabulation for Theme of Article Across Time Periods**

<table>
<thead>
<tr>
<th>Theme</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Healthcare Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>16</td>
<td>16</td>
<td>24</td>
<td>56</td>
</tr>
<tr>
<td>Expected</td>
<td>22.2</td>
<td>17.5</td>
<td>16.3</td>
<td>56.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>14.3%</td>
<td>18.2%</td>
<td>29.3%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-1.9</td>
<td>-0.5</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td><strong>People</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>33</td>
<td>17</td>
<td>23</td>
<td>73</td>
</tr>
<tr>
<td>Expected</td>
<td>29.0</td>
<td>22.8</td>
<td>21.2</td>
<td>73.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>29.5%</td>
<td>19.3%</td>
<td>28.0%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>1.1</td>
<td>-1.7</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td><strong>Elder Risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>21</td>
<td>5</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Expected</td>
<td>14.7</td>
<td>11.5</td>
<td>10.8</td>
<td>37.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>18.8%</td>
<td>5.7%</td>
<td>13.4%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>2.3</td>
<td>-2.5</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td><strong>Government Policies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>12</td>
<td>11</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Expected</td>
<td>13.1</td>
<td>10.3</td>
<td>9.6</td>
<td>33.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>10.7%</td>
<td>12.5%</td>
<td>12.2%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-0.4</td>
<td>0.3</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td><strong>Health and Disease</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Expected</td>
<td>6.8</td>
<td>5.3</td>
<td>4.9</td>
<td>17.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>7.1%</td>
<td>4.5%</td>
<td>6.1%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>0.6</td>
<td>-0.7</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td><strong>Healthcare Systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>22</td>
<td>35</td>
<td>9</td>
<td>66</td>
</tr>
<tr>
<td>Expected</td>
<td>26.2</td>
<td>20.6</td>
<td>19.2</td>
<td>66.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>19.6%</td>
<td>39.8%</td>
<td>11.0%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-1.2</td>
<td>4.4</td>
<td>-3.2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>112</td>
<td>88</td>
<td>82</td>
<td>282</td>
</tr>
<tr>
<td>Expected</td>
<td>112</td>
<td>88</td>
<td>82</td>
<td>282</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

85
The adjusted residuals in Table 14 show that the elder risk, healthcare systems, and healthcare costs themes made the greatest contributions to the statistically significant chi-square value.

Articles with an elder risk theme accounted for 19% of articles in the first time period, 6% of articles in the second time period, and 13% of articles in the third time period. The first time period, 2001, contained more than half of the elder risk articles, about older adults who may be at risk of undesirable outcomes, such as sickness, isolation, poverty, and crime, or older adults that have experienced any form of abuse or neglect; and there was approximately a third more elder risk articles than expected in the first time period, creating a significant (2.3) adjusted residual. Almost half of the articles about elder risk in 2001 were the result of reports released by the New York State Department of Health that said it conducted nursing home audits and found local nursing homes in violation of State or Federal regulations. Articles in later time periods only contained one or two articles, respectively, about nursing home reports.

Healthcare systems, about the policies, programs, staffing, and other operational matters at large institutions, was the most prevalent theme in the second time period, 2003, with 40% of all articles. The second time period also contained the greatest amount of articles using the healthcare systems theme (53%), which was more than expected, and made the largest contribution to the significant chi-square (adjusted residual = 4.4). Coverage of healthcare systems dropped in the third time period, and accounted for less than half of the expected number of articles (adjusted residual = –3.2).
A comparative analysis of the healthcare systems articles in 2003 showed the articles were about nursing strikes and union negotiations at local nursing homes, or reducing the size of, or closing, local nursing homes and a hospital. These events were specific to 2003, and thus account for the increase in healthcare systems articles from 2001 to 2003, and the resolution of these events in 2003 explains the decrease in healthcare systems articles from 2003 to 2004.

The number of healthcare costs articles in the third time period, 2004, was about a third more than expected, providing a 2.5 adjusted residual. Healthcare costs in the third time period was both the most frequent theme for the third time period, and the largest representation of healthcare costs articles across time periods.

The percentage of articles about healthcare costs, which are about private health insurance, prescription costs, long term care insurance, financial issues in healthcare organizations and institutions, and the costs of government sponsored programs such as Medicare and Medicaid, increased from 2001, to 2003, to 2004. Meanwhile, overall coverage of older adult care declined during the same time periods.

Articles about healthcare costs in 2001 were mostly about the high costs of long term care and how baby boomers can plan financially to care for themselves and their parents or other elder relatives as they age, or they were about proposed Medicaid cuts to New York State nursing homes, and nursing shortages in New York State nursing homes. There was no local coverage (at the county, city, town, or individual level) in 2001 healthcare costs articles.

In 2003, half of the healthcare costs articles were about local nursing homes having financial difficulties due to low Medicaid reimbursement rates from New York
State, or programs for seniors in the local area. Coverage of proposed Medicaid cuts and nursing shortages in New York State nursing homes continued.

Most of the healthcare costs articles in 2004 were about the financial hardships of local nursing homes due to the low Medicaid reimbursement rate from New York State, and a few of the articles were about how one county legally diverted Medicaid reimbursements for the county nursing home to the county and state governments using a particular Medicaid reimbursement formula that the federal government has since disallowed. Financing care for oneself or older relatives as they age reappeared in articles in 2004, but coverage of proposed Medicaid cuts in New York State and nursing shortages at New York State nursing homes that was in 2001 and 2003 articles was no longer present in 2004.

**Research question 4.2: Living arrangements in older adult care over time.**

Do the living arrangements that are presented in articles about care for older adults differ from 2001 to 2003 to 2004? (Variables: living arrangement; time period.)

- $H_0$: There is no relationship between time period and living arrangement.
- $H_a$: There is a relationship between time period and living arrangement.

A Pearson chi-square test of independence was performed on the living arrangement variable and the time period variable, to determine if there was a statistically significant difference in the amount of articles about each type of living arrangement across time periods. Living arrangement is the dependent variable and time period is the independent variable in this analysis.

The contingency table for living arrangement by time period upon which Pearson’s chi-square test of independence was performed appears in Table 15.
The resulting chi-square is not greater than or equal to 9.488 (the critical value for a chi-square with 4 df at a .05 alpha level); therefore, a statistically significant association was not found between the time period when an article was published and the living arrangements presented in an article ($\chi^2 (4, N = 284) = 8.664, p = .070$). The null hypothesis that the living arrangement variable and the time period variable are independent failed to be rejected, and this indicates that the amount of media coverage given to each living arrangement was relatively stable over time.

Approximately half of the articles in the sample were about institution-based living arrangements, most often about nursing homes, but assisted living facilities and rehabilitation centers were also mentioned. Institution-based living arrangements also comprised the highest percentage of articles in each time period.
Table 15. *Crosstabulation for Living Arrangement in Article Across Time Periods*

<table>
<thead>
<tr>
<th>Living Arrangement</th>
<th>Time Period</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td>31</td>
<td>20</td>
<td>23</td>
<td>74</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>29.7</td>
<td>22.9</td>
<td>21.4</td>
<td>74.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>27.2%</td>
<td>22.7%</td>
<td>28.0%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>0.4</td>
<td>-0.9</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td>55</td>
<td>56</td>
<td>36</td>
<td>147</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>59.0</td>
<td>45.5</td>
<td>42.4</td>
<td>147.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>48.2%</td>
<td>63.6%</td>
<td>43.9%</td>
<td>51.8%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>-1.0</td>
<td>2.7</td>
<td>-1.7</td>
<td></td>
</tr>
<tr>
<td>Combination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td>28</td>
<td>12</td>
<td>23</td>
<td>63</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>25.3</td>
<td>19.5</td>
<td>18.2</td>
<td>63.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>24.6%</td>
<td>13.6%</td>
<td>28.0%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>0.8</td>
<td>-2.3</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Although a statistically significant relationship was not found between the type of living arrangement presented in an article and the time period when the article was published, there was a noticeable change in the amount of articles in each living arrangement category in the second time period (2003). In 2003, community-based articles, such as those about older adults living independently at home, with family members, in senior housing or a retirement community, or with the assistance of a home
health aide declined, and articles that featured a combination of institution-based and community-based living arrangements also declined. During the same time period (2003) articles about institution-based living arrangements peaked, due to newspaper coverage of nursing strikes and union negotiations at local nursing homes, and media coverage of local nursing home and hospital closures or capacity reductions.

Mebane (2001) identified the top three long term care topics presented in newspapers to be nursing homes, assisted living facilities, and home health care, respectively. In this dissertation, the researcher reviewed all care conditions for older adults, including circumstances where care was not necessary (where an older adult functions independently), and found the top three living arrangements mentioned in articles to be nursing homes, older adults who were living independently at their home, and family caregivers that assisted older adults.

**Research question 4.3: Quality of articles about older adult care over time.**

Does the quality of articles change from 2001 to 2003 to 2004? (Variables: quality; time period.)

- $H_0$: There is no relationship between time period and quality.
- $H_a$: There is a relationship between time period and quality.

A Pearson chi-square test of independence was performed on the quality variable and the time period variable, to determine if there was a statistically significant difference in the quality of articles across time periods. Quality is the dependent variable and time period is the independent variable in this analysis. The contingency table upon which this chi-square is based appears in Table 16; this table shows the proportion of articles in each level of quality that appear in each time period.
Table 16. **Crosstabulation for Quality of Information Across Time Periods**

<table>
<thead>
<tr>
<th>Quality</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>11</td>
<td>16</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>Expected</td>
<td>15.7</td>
<td>12.1</td>
<td>11.3</td>
<td>39.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>9.6%</td>
<td>18.2%</td>
<td>14.6%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-1.6</td>
<td>1.5</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>14</td>
<td>11</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>Expected</td>
<td>16.1</td>
<td>12.4</td>
<td>11.5</td>
<td>40.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>12.3%</td>
<td>12.5%</td>
<td>18.3%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>-0.7</td>
<td>-0.5</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>89</td>
<td>61</td>
<td>55</td>
<td>205</td>
</tr>
<tr>
<td>Expected</td>
<td>82.3</td>
<td>63.5</td>
<td>59.2</td>
<td>205.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>78.1%</td>
<td>69.3%</td>
<td>67.1%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td>1.8</td>
<td>-0.7</td>
<td>-1.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
</tr>
<tr>
<td>Expected</td>
<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
</tr>
<tr>
<td>% within Time Period</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

A statistically significant association was not found between the time period when the articles were published, and the quality of information contained in the articles, \( \chi^2 (4, N = 284) = 5.097, p = .278 \); therefore, the null hypothesis that the quality and time period variables are independent failed to be rejected. This implies that the quality of information contained in articles about older adult care is consistent over time.

Overall, and in each time period, the majority of articles were good quality, which presented balanced information by presenting both sides of an issue, helpful information,
or a lot of facts. According to Entman (2007), a balanced article that presents both sides is the journalistic ideal. Although this research question was not statistically significant, this finding indicates that the quality of articles in Capital Region newspapers was consistently good across time periods.

**Research question 4.4: Objectivity of articles about older adult care over time.**

Does the objectivity of articles change from 2001 to 2003 to 2004? (Variables: objectivity index; time period.)

\[ H_0 : \text{The objectivity index scores do not differ across time periods.} \]

\[ H_a : \text{At least one mean objectivity index score differs from the mean objectivity index scores on the remaining time periods.} \]

Using objectivity as the dependent variable and time period as the independent variable, a one-way ANOVA was performed to determine if there is a statistically significant difference in the articles rated 0 through 7 on the objectivity index for each category of the time period variable.

**Table 17. ANOVA for Objectivity Across Time Periods**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>( F )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>10.824</td>
<td>2</td>
<td>5.412</td>
<td>3.126</td>
<td>.045</td>
</tr>
<tr>
<td>Within Groups</td>
<td>486.426</td>
<td>281</td>
<td>1.731</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>497.250</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The resulting ANOVA is greater than 3.027898 (the critical value for an ANOVA with three groups at a .05 alpha level and \( df = 2 \) and 281), therefore, the null hypothesis that the objectivity score is the same across time periods is rejected, and the hypothesis
that the objectivity score differs across time periods is accepted. Table 18 presents the mean objectivity index score and the standard deviation for each time period.

**Table 18. Average Objectivity Score and Standard Deviation for Time Periods**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>3.33</td>
<td>1.281</td>
<td>114</td>
</tr>
<tr>
<td>2003</td>
<td>2.97</td>
<td>1.393</td>
<td>88</td>
</tr>
<tr>
<td>2004</td>
<td>3.44</td>
<td>1.278</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>3.25</td>
<td>1.326</td>
<td>284</td>
</tr>
</tbody>
</table>

Reporting on facts, or presenting information in a way that implies the information is factual, provides an article with evidence of objectivity. Average levels of objectivity in articles about older adult care declined from 2001 to 2003, then increased in 2004.

Two of the time periods when articles were published had a higher mean objectivity score than the mean objectivity score for all time periods ($M = 3.25$); articles published in the first time period, 2001, had a 3.33 mean objectivity score, and articles published in the third time period, 2004, had the highest mean objectivity score ($M = 3.44$). The second time period, 2003, had a lower mean objectivity score ($M = 2.97$) than the overall mean objectivity score.

In order to determine which time period(s) had an objectivity index score that differed significantly from other time periods, post hoc multiple comparisons were performed on the data using Bonferroni testing; however, this failed to realize any statistically significant pairings.
A less conservative test, Fisher’s least squares difference (LSD), revealed a statistically significant difference between the time periods with the highest and the lowest mean objectivity scores. Articles published in 2004 had greater objectivity than articles published in 2003 ($p = .02$). The lowest average objectivity score occurred in 2003, which was due to the relatively high number of articles about nursing strikes and union negotiations at local nursing homes, most of which conveyed a low level of objectivity.

**Research question 4.5: Tone of articles about older adult care over time.**

Does the tone of articles change from 2001 to 2003 to 2004? (Variables: tone; time period.)

$H_0$: There is no relationship between time period and tone.

$H_a$: There is a relationship between time period and tone.

A Pearson chi-square test of independence was performed on the tone variable and the time period variable, to determine if there was a statistically significant difference in the impression generated by articles across time periods. Tone is the dependent variable and time period is the independent variable in this analysis. Table 19 is the contingency table upon which this chi-square is based; this table shows the proportion of articles in each category of the tone variable that appear in each time period.
Table 19. Crosstabulation for Tone of Information Across Time Periods

<table>
<thead>
<tr>
<th>Tone</th>
<th>Time Period</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td>46</td>
<td>30</td>
<td>35</td>
<td>111</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>44.6</td>
<td>34.4</td>
<td>32.0</td>
<td>111.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>40.4%</td>
<td>34.1%</td>
<td>42.7%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>0.4</td>
<td>-1.2</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td>39</td>
<td>45</td>
<td>31</td>
<td>115</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>46.2</td>
<td>35.6</td>
<td>33.2</td>
<td>115.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>34.2%</td>
<td>51.1%</td>
<td>37.8%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>-1.8</td>
<td>2.4</td>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
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<tr>
<td>Observed</td>
<td></td>
<td>29</td>
<td>13</td>
<td>16</td>
<td>58</td>
</tr>
<tr>
<td>Expected</td>
<td></td>
<td>23.3</td>
<td>18.0</td>
<td>16.7</td>
<td>58.0</td>
</tr>
<tr>
<td>% within Time Period</td>
<td></td>
<td>25.4%</td>
<td>14.8%</td>
<td>19.5%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Adjusted Residual</td>
<td></td>
<td>1.7</td>
<td>-1.6</td>
<td>-0.2</td>
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<tr>
<td>Total</td>
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<tr>
<td>Observed</td>
<td></td>
<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
</tr>
<tr>
<td>Expected</td>
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<td>114</td>
<td>88</td>
<td>82</td>
<td>284</td>
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<tr>
<td>% within Time Period</td>
<td></td>
<td>100%</td>
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A statistically significant association was not found between the tone of the articles, and the time period when the articles were published, \( \chi^2 (4, N = 284) = 7.412, p = .116 \); therefore, the null hypothesis that the tone and time period variables are independent failed to be rejected. This implies that the tone of the articles about older adult care did not change over time.

The majority of the time, newspaper articles either gave a neutral or negative impression of older adult care. Newspaper articles often left the reader without a strong
overall impression because they presented a mixed picture of older adult care with some content giving a favorable impression, and some content giving an unfavorable impression of older adult care, or the article did not give a dominant positive or negative impression (41%). Nearly as common were newspaper articles that gave an unfavorable impression of aging with misleading, hurtful, or stereotypical content (39%). This was true regardless of time period.

Buchholz and Bynum (1982) found that the amount of news items that portrayed aging issues in a negative way increased over time (1970 & 1978). Overall, this dissertation showed a fluctuation in the percentage of negative, neutral, and positive tone articles over time. There was a decrease in positive tone articles over time, but only a slight rise in negative and neutral articles from the first to the last time period. Issues and events deemed important for news reporting change over time, and with a change in topics being covered, the tone of articles may also change over time.

**Stability of Results Over Time**

LexisNexis State Capital was used to conduct the original keyword search of the *Times Union* to identify articles to be reviewed for inclusion in this dissertation (a full description of the article selection is included in Chapter 2). Then, using the same keywords and LexisNexis State Capital, the *Times Union* was searched for each year from 2001 to 2009. The number of hits that each keyword generated for a particular year were aggregated, and the total number of hits for each year is plotted in Figure 3. (The data collected for analysis were obtained from three of the years when the greatest number of articles were published in the *Times Union* (2001, 2003, and 2004).)

Originally, it appeared that the annual number of articles decreased each year from 2001
to 2008, then increased in 2009. However, upon further investigation, the Researcher observed that there were multiple copies of articles and obituaries, particularly for the “nursing homes” keyword in 2009, that were distorting the annual tallies. The Researcher visually scanned the results of the LexisNexis searches and identified all multiple copies of an article published on a particular day and removed extra copies of articles and obituaries identified in the nursing homes keyword search for each year, then recalculated the aggregate number of annual hits. Figure 4 presents this corrected data, and although it also shows an increase in articles in 2009, the increase is less than originally indicated in Figure 3, and overall shows a gradual decline in aging-related content from 2001 to 2009.

13 As evidenced by the erroneous uploading of multiple copies of an article or obituary on any given day in the LexisNexis database for the Times Union, computer databases used to identify and retrieve articles are not perfect representations of the paper copy of newspapers. It is certain that some articles are entered into the database more than once, and it is possible that other articles that should have been uploaded were omitted. This observation is a caution to future researchers to retain the human component in identifying and selecting articles for inclusion in a content analysis that are retrieved from the results of computer searches.
Figure 3. Annual keyword counts for the Times Union, 2001 to 2009.

Figure 4. Annual keyword counts for the Times Union, adjusted, 2001 to 2009.

The percentage of persons 65 years old and older in Albany and Schenectady counties, where the largest circulation newspapers in the Capital Region are located,
declined from 2000 to 2010. This may provide an explanation for the overall decline in the publication of older adult care topics in local newspapers between 2001 and 2009; it is possible that newspaper publishers have determined that the need to publish information about older adult care has declined since the proportion of older adults in the community has declined. However, it is also possible that other topics, unrelated to older adult care, gained the attention of the press, and changed the focus of reporting to these news items.\textsuperscript{14}

\textit{Power Analysis}

The greatest degrees of freedom for a chi-square in this dissertation is 10 degrees of freedom, such as in RQ 1.1, RQ 3.1, and RQ 4.1. It may be concluded that if a power analysis for a statistic with the greatest degrees of freedom shows that a particular sample size provides enough power to perform such statistic, that this sample size will also be sufficient for this statistic when it is performed with fewer degrees of freedom. Therefore, if the sample size used in this dissertation provides enough power (i.e., 80\% or higher power) to analyze a chi-square with 10 degrees of freedom, the highest degrees of freedom in this dissertation, then the sample size will provide enough power to perform all other chi-squares with lower degrees of freedom proposed for this dissertation.

\textsuperscript{14} Examples of national events that occupied news space for long periods during these years include the terrorist attacks of September 2001, Hurricane Katrina in August 2005, and the stock market crash in the latter part of 2008. Although these were national events, they affected many individuals and would therefore be likely to receive prominent coverage in local media outlets.
Using G*Power 3.0.8 computer software (Faul, 2006), a post hoc power analysis performed for a chi-square with 10 degrees of freedom at a .05 alpha level indicates that the sample size collected for this dissertation ($N = 343$) is sufficient to conduct all of the proposed analyses. As shown in Figure 4, a sample size of 181 cases with 10 degrees of freedom and a .05 alpha level has 80% power of detection, and additional cases above 181 continue to increase power (202 cases equals 85% power; 229 cases equals 90% power; 271 cases equals 95% power; and 343 cases equals 98.6% power).

To demonstrate how a chi-square with fewer degrees of freedom achieves acceptable power with fewer cases, Figure 5 shows the power achieved for sample sizes of a chi-square analysis with 2 degrees of freedom and a .05 alpha level (Faul, 2006). A chi-square with 2 degrees of freedom achieves 80% power with 108 cases, 85% power with 122 cases, 90% power with 141 cases, 95% power with 172 cases, and 99% power with 238 cases. The sample size for this dissertation ($N = 343$) exceeds all of these scenarios.

**Figure 5.** Power of sample sizes for a chi-square with 10 degrees of freedom.
Figure 6. Power for sample sizes of a chi-square with 2 degrees of freedom.

Power for a one-way ANOVA with a .05 alpha level was calculated for an ANOVA with six groups (Faul, 2006), the highest number of groups for an ANOVA in this dissertation, because if the sample size is sufficient for an ANOVA with this number of groups, it will be sufficient for analyses of variance with fewer groups. Figure 6 shows the power achieved for various sample sizes of an ANOVA with six groups. An ANOVA with six groups achieves 80% power with 211 cases, 85% power with 236 cases, 90% power with 270 cases, and 95% power with 323 cases. Therefore, the sample size for this dissertation ($N = 343$) is sufficient to perform all of the proposed analyses of variance.
**Figure 7.** Power for sample sizes of an ANOVA with six groups.

**Summary of Findings**

The sampling frame included all articles from four newspapers in the Capital Region of New York State during three time periods that depicted how people live independently, or with assistance, as they age. The first time period, 2001, contained the highest number of articles, and about half of these articles came from *The Daily Gazette*. The number of articles declined in later time periods, 2003 and 2004. The greatest percentage of articles were about people, followed by healthcare systems and healthcare costs; coincidentally, people was the most frequent theme in the first time period, healthcare systems was the most frequent in the second time period, and healthcare costs was the most frequent theme in the third time period. Most articles were in the lower range of the objectivity index, with the lowest average score occurring during the second time period, 2003. Regardless of time period, an institution living arrangement was presented most frequently, articles contained good quality of information, and the tone of articles was usually neutral or negative.
Chapter 4.

Discussion

The following discussion highlights the key findings and implications revealed from the research questions. Specifically, antecedent conditions to the communication content identified in this dissertation is explored through the centrality model, and considering possible framing effects. The tone and topics concepts are also elaborated upon, as they produced the most outstanding findings, findings that can be used to improve communication content about older adult care by policymakers, advocates, and researchers. Later in this chapter, the applications for this research in the field of social welfare, and lessons learned for future researchers are addressed.

Antecedent Conditions in the Centrality Model

The interest of newspapers in older adult care topics, as shown by the amount of coverage given to these topics, declined each year, even though more baby boomers reached age 55 and older in each year of the study. Also notable is that newspapers have not redirected their attention toward community living arrangements as more baby boomers have reached 55 years old, even though this is the living arrangement experienced by most older adults (Werner, 2011), and desired by most older adults (Feldman, Oberlink, Simantov, & Gursen, 2004). These observations imply that the centrality model, at least in its current state with “the baby boom generation reaching older adulthood” as the antecedent condition for the focus of newspaper reports of older adult care from 2001 forward, is not supported. The model shows that newspaper content should feature topics of interest to boomers and older generations (such as community
based care options), but this was not observed to be a major focus in the data. However, this may not indicate a problem in the model, rather, there may be a discrepancy between public beliefs, newspaper content, and the true experiences of older adults. For example, a USA Today and ABC News (2005) poll shows that 52% of adults are concerned that they will enter a nursing home as they get older. This concern of the public may be mirrored in newspaper content which mainly covers institutional living arrangements (rather than a desired community living arrangement), or, as suggested by the centrality model, coverage by newspapers may be affecting the knowledge and beliefs of the public (for example, due to the abundance of coverage about institutional living arrangements, the public may believe that they will enter a nursing home when they reach old age, even though only a small percentage of the population 65 years and older actually resides in a nursing home; Werner, 2011).

Another way to approach the centrality model is by analyzing communication content to identify antecedent conditions, rather than proposing an antecedent condition that is anticipated to affect communication content. Using this approach, and the same communication content, the most popular theme for each year of the research (people, healthcare systems, and healthcare costs, respectively) can be used to place the articles in context and determine what might have influenced news content in each time period. In this scenario, baby boomers reaching age 55 in 2001, nursing strikes and union negotiation coverage in 2003, and anticipated changes in Medicaid reimbursement in 2004, are shown to be antecedent conditions affecting news content about older adult care. Therefore, although the baby boom generation entering older adulthood cannot be
identified as an antecedent condition affecting news content from 2001 forward, it can be identified as a condition affecting news content in 2001 alone.

**Baby Boomers**

The most popular theme in the first time period, 2001, when the oldest baby boomers began turning 55 years old (pre-retirement, or early retirement age), was a people theme. A comparative analysis of these people themed articles revealed that most were about community-based housing options (such as where to live in retirement, services that allow a person to remain in their own home when they begin having difficulty caring for themselves, and specialized housing for seniors), and caregiving to parents or other older relatives. Based on these findings, it appears that the antecedent condition identified in the centrality model (the baby boom generation entering older adulthood) was perhaps an impetus for news coverage in 2001, as the articles in the people theme show that these types of articles were predicted to be an interest to baby boomers and older adults, and that these interests would be reflected in media coverage of these items. As more baby boomers continued to reach age 55 in the later time periods of this dissertation, however, interest in reporting on these items was not sustained, and other article themes gained popularity.

**Nursing Strikes**

A comparative analysis of the healthcare systems articles in 2003 showed that articles about nursing strikes and union negotiations at local nursing homes, or reducing the size of, or closing, local nursing homes and a hospital, inflated the amount of articles with a healthcare systems theme. Analyzing the high incidence of articles about institution-based living arrangements in 2003 revealed the same conclusions as for
healthcare systems articles; increases in articles about these topics (healthcare systems and institutional living arrangements) was due to newspaper coverage of nursing strikes and union negotiations at local nursing homes, and media coverage of local nursing home and hospital closures.

Data collected for the second time period, 2003, covered three months (January, February, and March) that were not covered during other time periods in this dissertation. With this knowledge, the Researcher was able to identify the antecedent condition for the healthcare systems themed articles in 2003. In the retirement plan for New York State workers, a service year ends each March 31, and most healthcare systems articles in the second time period occurred in March 2003. Perhaps a correspondence to the end of a fiscal year, and thus the end of a contract year, makes news coverage of striking workers more likely during the month of March. Contracts for New York State employees typically extend for several years, therefore, nursing strikes or increased nursing home coverage may not be seen in local newspapers every year (even if January, February, and March were included in each year of the research), but coverage of strikes and union negotiations may return during these months every few years when contracts are renegotiated.

**Healthcare Costs**

The rise in articles with a healthcare costs theme in 2004 may be a response to the end of the Jobs and Growth Tax Relief Reconciliation Act of 2003. The 2003 Act provided $20 billion to states to offset the cost of Medicaid and other state programs, and this funding expired in 2004 (Smith et al., 2004). The healthcare costs articles identified as the most prominent topic in the local press in 2004 usually addressed insufficient
Medicaid reimbursements from the State. Therefore, the antecedent condition leading to the increase in healthcare costs articles in 2004 is likely a reaction to the end of federal funding provided to states from the 2003 Act.

**Tone**

Until this dissertation, newspaper content analyses of aging topics that assessed the tone communicated by newspaper content had not been conducted since the 1980s (Broussard et al., 1980; Buchholz & Bynum, 1982). Unlike Broussard et al. (1980) and Buchholz and Bynum (1982), who found that most of their news items about aging from the 1970s conveyed a neutral tone, this dissertation from the 2000s found that most news items about older adult care had a neutral or negative tone. Explanations for the discrepancy between past and present findings follow.

**Sample Characteristics**

The nature of the sample differed across research studies. For example, Broussard et al. (1980) included advertisements and graphics in their sample, and Buchholz and Bynum (1982) included obituaries and other notices; but those items were excluded from this dissertation, and this dissertation included editorials and opinion pieces that were excluded in the Buchholz and Bynum study. Also, all of the articles in the final sample for this dissertation were categorized according to the type of living arrangement presented in an article, but only 0.5% of articles in the Buchholz and Bynum study were about living arrangements (which they categorized as “housing”), and most of the articles in the Buchholz and Bynum study were not specifically about aging or aging related topics.
**Historical Context**

The years under study in previously published research are different than the years studied in this dissertation. Although previous researchers emphasize that their results contradict public assumption that media conveys a negative impression of aging, this dissertation found that neutral and negative impressions dominate topics about older adult care. The change in tone conveyed by the media about aging from the 1970s (Broussard et al., 1980; Buchholz & Bynum, 1982), to the early and mid 2000s in this dissertation, may result from the advancement of the baby boomers to age 55 beginning in 2001, because they are concerned about needing care for themselves and their loved ones as they age (Skufca, 2007; USA Today & ABC News, 2005), and they are concerned about having to provide care to a loved one as he or she ages (Harris Interactive, 2011); therefore, they may be bringing attention to their concerns about older adult care via negative press. Increases in life expectancy that have lead to people living longer as an older adult (Hoyert, 2012), likely with a chronic medical condition that will require them to receive some form of care in their later years (Administration on Aging, 2006; He et al., 2005; National Center for Health Statistics, 2005), and the transition of the baby boomers into older age classes that will increase the population of older adults in society, justifies the baby boomers’ concerns relating to older adult care.

As more people have personal experiences of seeing their parents or other loved ones enter into older age groups where the need for caregiving is more likely, their concerns may be reflected in the media and demonstrated by the increase in negative portrayals of aging from the 1970s to the 2000s. If this trend continues, more negative
tone articles about older adult care can be anticipated, especially from 2011 forward as the baby boomer cohort advances into the 65 and older age class.

**Impacts of Tone**

Most articles in this dissertation convey a neutral or negative tone to the reader. Initially, it may seem desirable that neutral tone articles (those that do not promote a specific impression of older adult care) are prevalent because the audience is then able to form their own impression about older adult care, but previous research shows this does not necessarily happen. Readers are more likely to mimic the impression generated in the press, positive or negative, if they do not already have an opinion on a subject, than to formulate their own opinion based on neutral information provided by the press (Cook et al., 1983). The formation of an opinion from neutral information also requires the reader to seek more information on the topic (which the reader may or may not do) (Borah, 2011; Pan & Kosicki, 2005; Sniderman & Theriault, 2004). Research also shows that readers who already have a positive or negative impression of a certain topic will find confirmation for the beliefs they already hold in a neutral tone article, rather than using the information in the neutral article to promote critical thinking on the topic (Feldman, 2011).

Presenting aging issues in a positive or neutral tone may not be in the best interest of older adults, most of whom will need some form of assistance at some point in time due to chronic conditions, because positive and neutral impressions of aging in the media do not advance the current state of affairs for older adult care (Sheafer, 2007). Negative tone articles leave a reader with a feeling of concern or worry about older adult care, or they present information in a way that is unfavorable, misleading, hurtful, or
stereotypical. News items that are framed with a negative tone can be desirable because they attract the public’s attention and can rally a call to action for policymakers to provide funding, services, programs, and facilities that provide varying levels of care to older adults to help them remain in their community (Cook et al., 1983).

**Topics**

News articles have the power to promote change in policies and programs by bringing a need to the public’s and policymakers’ attention through the volume of coverage the media gives to a particular topic (Sheafer, 2007; Yanovitzky, 2002). The amount of media coverage found in this dissertation indicates that the media has framed institutional living arrangements, specifically nursing homes, as the most salient issue of older adult care, and conveying a plurality of institutional articles using a negative tone, the media has framed nursing homes as the most important care issue requiring attention and action (Sheafer, 2007). However, there is a discrepancy between the high amount of newspaper coverage of nursing homes, and the actual incidence of nursing home residence. According to the 2010 Census, just 3.1% of adults 65 years old and older actually reside in a nursing home (Werner, 2011). Most older adults, therefore, reside in a community setting. Community living arrangements are not highly represented in this dissertation’s sample, meaning there is little attention being brought to topics of in-home care and maintaining independence in later life, even though this is the most common experience for older adults.

Most people fear an ultimate need for themselves or their loved ones to enter a nursing home (USA Today & ABC News, 2005). The media may perpetuate this fear through the amount and tone of their coverage regarding nursing homes even though
most abuse occurs at home, primarily by an adult child or other family member, not in an institution (National Center on Elder Abuse, 2006). The media is missing an opportunity to inform the public of services and programs, and to provide examples of persons who are able to continue living in the community, even when they need care, and the media is missing an opportunity to bring elder abuse that occurs to elders in the community, and the benefits of nursing home care to the public’s attention. Because newspapers make it appear as though a greater risk of abuse lies in nursing home residence than living at home, perhaps at-home victims perceive themselves as an oddity, and this perception inhibits them from reporting abuse.

Rozanova (2010), whose research used a Canadian newspaper, found articles were focused on positive aging which says it is an individual’s responsibility to be physically and mentally healthy as they age; positive aging was not a recurring theme in this dissertation. This could indicate a difference in the approach to aging being taken by Canada compared to America. In Canada, the focus on positive aging is a promotion for people to take responsibility for how they age, with blame placed on the individual if they fail to age successfully. In America, at least in the Capital Region of New York, which is the location of newspapers in this dissertation, positive aging was not a dominant message conveyed in the media. However, the Canadian research included all articles related to aging, and this dissertation focused on older adult care, and measuring positive aging in the press was not a focus of this dissertation, so it may not be appropriate to compare these two studies.
The findings of this dissertation show that society is accepting of, or expectant of, institutional care (particularly nursing homes) in older adulthood, as opposed to services that allow for, or promote the ability of elders to remain in their community living environment (most articles in this dissertation were about institutional living arrangements, and many articles had a negative tone).

Does the media’s focus on institutional living arrangements make older adults feel better about themselves if they are not in nursing home care, because newspapers make nursing home care seem like the norm, and they have been more successful than the norm? Or does this portrayal of aging in the newspapers create anxiety for readers that nursing home care is inevitable for themselves and their loved ones? These are questions that future research might answer.

**Potential Applications and Relevance to Social Welfare**

Many social workers in private practice, casework, and advocacy positions work with people who are coping with the stress of caring for a loved one, or who are making decisions for a loved one who is advanced in age and can no longer care for her or himself. Social workers and those they serve receive information about community services and care facilities through their local media outlets. It is important for social workers to be aware of the information presented in the media, because this information has likely helped inform the opinions and knowledge held by their clients, and themselves, regarding long term care services and elder caregiving.

Social workers can be made aware of the media’s influence on their clients’ knowledge and beliefs, and clarify misconceptions promoted by the media (such as the
incorrect assumption that nursing home care poses the greatest risk for abuse of older adults). Social work education can teach social workers that clients, and themselves, are influenced by the media, so that social workers can be aware of this force and think more critically about the information to which they, and their clients, are exposed.

The findings of this dissertation are important and useful to policymakers, the public, social workers, advocates, and researchers. They are important for policymakers because policymakers can propose laws and bills that benefit an aging society, and they can authorize government investigations and reports about nursing home versus in-home care and abuse. They can also acquire funding for these investigations, for programs for caregiver support services, and for public service announcements. The findings are important for the public because the findings indicate that people are not receiving information they need about nursing home care, in-home care, and elder risk. Findings are important for social workers in practice because it shows what information they and their clients receive from the media; and findings are important for advocates and researchers because these groups can release research reports and statistics to the media that draw attention to elder risk in the community, and they can continue research that monitors the media’s coverage of these topics in the future.

Producing high quality, objective newspaper articles on issues relevant to an aging population can empower citizens through information. The media can be encouraged to provide the public with more information about resources that would allow older adults to remain in their communities, but also acknowledge the risks and challenges associated with family caregiving.
The findings of this dissertation suggest that the knowledge, beliefs, and opinions of the public regarding nursing home and in-home care may not be well informed. Changing and improving the information transmitted to the public through the media could be prompted by policymakers, advocates, and researchers.

**Influencing Media**

Research has shown that policymakers collaborate with the media to bring certain topics to the attention of the public and other policymakers to gain support for their causes (Cook et al., 1983; Gershon, 2012). Cook et al. (1983) found that media coverage influences what the public identifies as an important item for policymakers to address (see also Kim, Scheufele, & Shanahan, 2002), and increases the importance of this topic for other policymakers. News coverage also affects other policymakers’ beliefs about whether or not the public cares about a topic (see also Yanovitzky, 2002), and news coverage affects policymakers’ beliefs on whether or not to take policy action on a topic (Cook et al., 1983). Policymakers are capable of influencing policy through collaboration with specific journalists who provide media coverage for the interests of policymakers, often in exchange for exclusive coverage of stories (Cook et al., 1983), and the use of press secretaries, press releases, press conferences, and media advisories that release information to a variety of news sources at one time (Gershon, 2012).

Advocates and researchers can affect media by influencing policymakers who influence media, or influencing media directly. Advocates can go to the Capitol Building and speak to representatives (policymakers) about their cause, or advocates and researchers can release reports on their research to the press so it reaches the public. Releasing reports to the media gives policymakers, advocates, and researchers an
opportunity to educate the public and gain support for topics of importance. Gershon (2012) advises that to get priorities addressed in the press, to be available to reporters for personal interviews, and to develop a good rapport with reporters to increase the amount of coverage, and the amount of coverage with a positive tone, for a particular cause of interest to the policymaker, advocate, or researcher. Journalists also say they are more likely to publish a story received from someone they know, and stories about a new research finding, rather than a replication of what has been done in the past (Slass, 2003). Offering an exclusive story is a way to develop rapport and increase the likelihood that topics of interest to policymakers, advocates, and researchers will get published. An example of how to do this is contacting reporters previously worked with, or that are known to cover a particular topic, and telling them a couple months in advance of a press release about a new study and its findings (Slass, 2003).

**Research Implications**

The methodology employed in this dissertation was a quantitative content analysis. This methodology was useful for coding and comparing many newspaper articles in a structured, systematic format that supported analysis using well known statistical tests. The disadvantage that the Researcher found to using this method was that results of the quantitative analysis did not provide insight to aid in explaining or understanding the quantitative findings. In order gain a deeper understanding of the results, it was necessary to incorporate a qualitative analysis into this research.

The qualitative analysis that was employed was not part of the original methodology, but was a necessary addition in order to interpret the results in the most
accurate manner. Most qualitative content analyses are conducted on a dataset prior to any quantitative analysis, and are used to discover themes in the articles as the articles are reviewed, rather than beginning with a set of predefined categories (Scheufele, 2006; Tutty, Rothery, & Grinnell, 1996). In this dissertation, all of the data were coded and analyzed, then a group of articles identified via the quantitative analysis as making a statistically significant contribution to a finding was retrieved, and the Researcher performed a qualitative analysis (a comparative, thematic analysis) (Bazeley, 2013; Neuendorf, 2002; Rozanova, 2010; Tutty, Rothery, & Grinnell, 1996) upon these articles\textsuperscript{15} to learn if any common themes emerged that could describe at least half of the articles in this grouping. When complete, the Researcher performed a qualitative analysis on other groups of articles to determine if the same themes emerged, and if not, then an explanation for the significant findings was revealed. For example, articles featuring a community living arrangement were found to convey a positive tone more frequently than expected, which contributed to the significant chi-square for tone by living arrangement. A thematic analysis was performed on positive tone community articles and it was found that the majority of these articles discussed affordable housing, living on a fixed income, and volunteering. Were the positive tone community articles unique? To answer this question, the researcher had to conduct a thematic analysis on negative tone community articles, then on neutral tone community articles, and compare the common themes.

\textsuperscript{15} This qualitative analysis involves reading an article and preparing a summary of it, doing the same for the next article, and as this process continues, being mindful of any themes (commonalities) that begin to emerge from the articles.
themes\textsuperscript{16} (if any) identified in these analyses to the themes identified in the thematic analysis of the positive tone community articles. If the themes were the same in the group of positive tone community articles and at least one other community group, then this did not explain the differences between positive tone community articles and negative or neutral tone community articles; however, if the themes identified in the positive tone community articles differed from the themes identified in the negative tone and neutral tone community articles, then a difference in the articles was identified that could help explain what made the positive tone community articles different from negative and neutral tone community articles.

This is a time and labor intensive process that does not always enlighten the findings of the quantitative analysis. For example, in order to determine if the 21 positive tone community articles were substantively different from other community articles, a qualitative content analysis had to be performed on 74 articles (21 positive, 26 negative, and 27 neutral tone community articles), and this analysis only attempted to explain one of the significant groupings (positive tone community articles) that contributed to the

\textsuperscript{16} The word, “themes” used in this discussion of thematic analysis does not refer to the theme variable defined in this dissertation (healthcare costs, people, elder risk, government policies, health and disease, or healthcare systems). “Theme” as used in discussing thematic analysis is a term used in this type of analysis that refers to the main subject of a news article, and as used here to explain the differences between groups of articles, is more specific than the broad categories of the theme variable used throughout the rest of this dissertation.
statistically significant tone by living arrangement chi-square. In this example, the thematic analysis was worthwhile because it showed the content of the positive tone community articles was different than the negative or neutral tone community articles, but such differences are not always found, and in these circumstances, much effort and time has been expended without a return for this investment.

Advice to future researchers doing a quantitative content analysis, whether or not they believe a qualitative component will later be necessary to assist in explaining their findings, would be to add a section to the coding instrument for a brief summary of the article. If a comparison of article groupings is later needed, the researchers can retrieve summaries of each grouping without needing to return to the full text of the original article to write a summary after data collection. This technique may not be able to comprehensively describe article groupings as related to specific research questions, since qualitative content analysis is an evolving analysis, with each new article reviewed contributing to the identification of categories that later comprise the themes identified within a sample, but it may provide enough insight to inform the researcher whether or not a more comprehensive qualitative analysis (as was done for this dissertation, with rereading, summarizing, and looking for similarities throughout each article in a grouping) is necessary. If deemed unnecessary, this would considerably reduce the time required to identify pertinent explanations for the quantitative findings. An alternative is for future researchers to explore software packages designed for content analysis that focus on qualitative analysis (although this would require the researcher to log data into two programs, one for quantitative and one for qualitative analysis), or seek to identify a content analysis program that accommodates mixed methods.
**Articles Collected for a Different Original Purpose**

The articles identified for inclusion in this dissertation were originally identified using a keyword search designed for an evaluation of a new community program’s impact on aging coverage in the media. The lists of articles produced from the keyword searches, and the hard copies of the printed articles were used to identify articles relevant to this dissertation. The Researcher is confident that all articles about older adult care or living independently as an older adult were identified in this process because the original search terms were selected to retrieve all articles about aging and aging related topics (the interest of the community program evaluation), and it was from this set of articles that articles specific to this dissertation, with a narrower focus than the community program evaluation (all articles about an elder living arrangement, and care that an elder may provide or receive), were retrieved. The main limitation of using articles identified for the community program evaluation was that they were published during specific months of specific years, so the Researcher did not have access to articles that may have been published during other months of each year included in the study, and this restriction on the months of publication for the community program evaluation was not applicable to the premise of this dissertation.

As the original purpose of data collection was for a program evaluation, the task was to describe the newspaper content at different stages of the community program and decide if changes in content were attributable to the program. There was no theoretical framework or conceptual model utilized for this evaluation. When the Researcher decided to use the lists of articles and printed articles to identify a sample for this dissertation, the focus of the research was narrowed to articles about care for older adults, based on the
premise that baby boomers would begin turning 55 in 2001, and this would provoke an interest in them for information about care options for themselves and older adult loved ones. However, there was still no theoretical framework, or conceptual model to guide this research (but this developed through the evolution of the coding instrument, discussed next).

**Coding Developed out of Original Purpose**

The 17 item instrument for the program evaluation was used as a starting point for this dissertation’s data collection instrument, but evolved into a 33 question instrument tailored to news articles about older adult care, and incorporated other interests, such as the variables for the objectivity index, that were specific to this dissertation. Variables such as quality and impression, which were in the program evaluation instrument, were developed further during coder training for this dissertation into variable definitions with good intercoder reliability.

As the instrument was developing for this dissertation, so was the Researcher’s understanding of media analysis, and the Researcher’s ideas for a theoretical framework and conceptual model that would be applied to this dissertation. It may be argued that this dissertation was a secondary data analysis, and as such, faced a difficulty common to secondary analysis, that the purpose of the secondary research is different from that of the original study, so the original theoretical framework and conceptual model that guided the original research is not applicable to the new study, or never existed. The researcher is then forced to work backward from a preexisting, finite set of variables to a new theoretical framework and conceptual model that applies to the new study. The Researcher faced this difficulty when using articles identified for the program evaluation,
which was not guided by a theoretical framework or conceptual model, as the pool of articles for this dissertation, because the Researcher essentially identified subjects (articles) for the research prior to developing a research methodology. Unlike a true secondary data analysis, however, the data collected for the program evaluation was not used in this dissertation, only the subjects (articles) were reused for this dissertation. None of the scores from the coding instrument used in the program evaluation were retained for use in this dissertation. All articles used in this dissertation were recoded by a new research assistant using a new adaptation of the original coding instrument that comprised more variables and was more refined in its instructions to coders than the original program evaluation instrument.

**An Adaptation of this Dissertation**

With sufficient funding and research assistance available to conduct a primary research study on the possible effect of baby boomers’ attainment of specific age classes on the media, the Researcher would have probably added “baby boomer,” “care” (rather than “long-term care”) and “retire” to the list of search terms for articles. The time periods from which data were collected would have been extended to 12 months for each year (rather than 6 months for each year in the study), and data would have been collected on articles published in 2002, since the dates of data collection would not need to correspond to the community program evaluation, so that data from each year from 2001 to 2004 would be available. An alternative to sampling all articles from each year about older adult care would be to randomly select months from each year of the study, or randomly select weeks from each month in the study, and search these time periods for articles published about older adult care to comprise a representative sample of articles.
published in each year. However, this random selection technique does not seem necessary for a short time period of four years (the amount of articles relevant to the study should not be overwhelming), especially when research assistance is available to aid in the coding of articles.

**Limitations**

Limitations are present in the sample, design, and analysis portions of this dissertation.

**Sample**

The time periods from which data were collected were restricted to a short span of time (three groups of six months from 2001 to 2004). To track changes over time, especially to see if more baby boomers reaching age 55 has had a possible effect on newspaper content, a longer time span should be studied, and perhaps entire years rather than several months from various years, since it is possible that certain months are more likely to contain information about older adult care than other months in a year.

Due to the small amount of articles from *The Saratogian* and *The Troy Record*, data were analyzed in the aggregate, making the results of this analysis subject to Simpson’s paradox, whereby one conclusion is drawn when the data are viewed in the aggregate, a different conclusion is drawn when data are separated into smaller data sets, and both conclusions are true. For this dissertation, Simpson’s paradox would suggest that the results of the dataset are appropriate for the Capital Region, but may not be true for each county (newspaper) within the Capital Region. In order to assess this possibility, an analysis was performed on larger contributors to the dataset, *The Daily Gazette* and
the *Times Union*, and upon the quality, objectivity, and tone variables to determine if results from these newspapers differed from the overall results; they did not, therefore, Simpson’s paradox does not apply to this dissertation.

The geographic restrictions of the sample impair generalizability of the results of this dissertation. The interpretation of results should be confined to the Capital Region of New York State; however, the standardization of article identification and coding allows for replication of this study in other areas of New York State and throughout the country.

**Design**

Available data applied to the centrality model of communication presented in Figure 1 allows for the investigation of the Antecedent Condition portion of the model, and the Communication Content portion of the model, but not the Effect portion of the model. However, in this dissertation, the model is not being tested. It is being used as a framework to classify the concepts in this dissertation and to guide the interpretation of the results and how the results may be applied to social welfare. Therefore, measuring two of the three portions of the centrality model of communication is appropriate for this dissertation.

**Analysis**

The use of correlational analysis presents a limitation in the interpretation of results. Relationships between variables may be identified, but claims of causality are inappropriate for correlations. Caution must also be exercised when interpreting relationships between variables, since the relationship may be the result of a third unmeasured variable (a spurious association).
Future Research

Future research can be designed to test the final stage of the centrality model, the effect of the media content, which is identified in this dissertation as public knowledge and opinions, since this portion of the model was not tested in this dissertation.

For example, using an experimental design, subjects can be given vignettes that represent a newspaper article. There can be two or more versions of a newspaper article on a topic that is framed differently in each vignette. Subjects can be randomly assigned to vignettes. After reading the vignettes, subjects can be given a survey to assess their opinion about the topic presented in the vignettes. A no treatment control group may also be given an opinion survey, without having been exposed to a vignette. Comparing the survey results from each group will test if the frame in the vignette affected the knowledge or opinions of the subjects.

Another example of how to test for media effects is with a quasi-experimental design that combines a content analysis with a public opinion survey. A control group of non-readers, and one or more experimental groups of readers of a particular newspaper (there may be more than one group based on degree of readership, such as daily readers and Sunday edition only readers), can be surveyed on their opinion of a topic recently presented in the newspaper. A content analysis can be performed on the newspaper articles to determine how that topic is being framed by the newspaper in the articles appearing just before the administration of the survey instrument. Using the centrality model of communication, a researcher could attribute differences between groups of nonreaders, daily readers, and Sunday readers to their exposure to news frames on a
particular topic. If the resources (time and funding) permit, a researcher can extend this study to a longitudinal study. Analysis of the responses to multiple surveys over time, that correspond to articles on a particular topic, will allow the researcher to determine if changes in the way a topic is framed influence the readers’ knowledge and opinions, and if the topic frame does not change, it will allow the researcher to measure if readers’ knowledge increases and if their opinions are strengthened with repeated exposure.

Other than testing the last part of the centrality model, which is theoretical research to gain support for or disprove a model, future research can be conducted that describes information about older adult care communicated in local newspapers which can be immediately applied for use by communities, policymakers, and advocates. One way to do this is by extending this dissertation to a content analysis of newspaper stories occurring in 2011, when the first baby boomers began turning 65 years old (and later years as complete newspaper databases become available)\(^{17}\), to determine if content has changed since the time periods in this dissertation. This will determine if the older adult care topics that need to be addressed have changed from 2001 to 2011, and therefore guide the efforts of policymakers and advocates who are working to improve the public’s knowledge about older adult care and the resources available for such care.

\(^{17}\) This Researcher found that the search engines in the LexisNexis databases for newspapers and newspaper websites are not immediately up-to-date at the end of a year, and it can take many months for a search to consistently return the largest number of results for particular keywords in specific time periods.
Another idea is to replicate this dissertation in other communities for a specific time period to provide feedback to the communities, policymakers, and advocates about local coverage of older adult care, and also to compare data across these communities to determine if generalizations can be made across local communities, or if they are each unique. This would inform later researchers about whether it is necessary to conduct community specific analyses on issues such as older adult care, or if local communities tend to function in similar ways that allow for results to be generalized across communities (for example) of a particular size, demographic composition, or geographic location.

Conclusion

This dissertation can serve as a basis for future research on older adult care in the media. The study can be replicated with other newspapers in specific locales to provide useful information to the media, policymakers, and advocates about the information communities are receiving about older adult care as baby boomers begin to enter older age groups, and these older age classes continue to be an increasing percentage of the population.

It has been observed that early content analyses focused on a broad coverage of aging in print media, but from the 2000s forward, researchers began to narrow their focus of aging stories studied in the media. In this dissertation, the focus was on older adult care in local newspapers, rather than articles with any mention of an aging-related topic. This narrowed focus allows researchers to uncover more detail in media content, making
their analyses more useful to social workers in practice, policymakers, advocates, and other researchers.

The concept of tone measured in this dissertation is particularly valuable as a tool to identify the opinions possibly held by the public and policymakers about specific communication content. Since tone measures the feeling a reader is left with upon completing a read of an article, it can therefore be useful in identifying the frames that might have the most impact on the public and policymakers’ knowledge and opinions. The use of qualitative analysis following the quantitative findings about older adult care in the media was also found to be a valuable and necessary tool for understanding the findings, and is a technique recommended to future researchers.
References


Appendix
# Newspaper Content Analysis Data Collection Form

1. Article ID#: ______________

2. Coder ID:  
   - JVL: 1  
   - KC: 2  
   - Other: 3

3. Newspaper:  
   - Daily Gazette: 1  
   - Saratogian: 2  
   - Troy Record: 3  
   - Times Union: 4

4. Length (# of words): __________

5. Search Term:  
   - elderly: 1  
   - aging: 2  
   - senior citizen: 3  
   - Medicare: 4  
   - long-term care: 5  
   - Medicare prescription card: 6  
   - Medicaid: 7  
   - nursing homes: 8  
   - Alzheimer's disease: 9

6. Title of Article: ____________________________

7. Date of Article: ________________

8. Time Period:  
   - 04/01/01 to 06/30/01: 1  
   - 01/01/03 to 06/30/03: 2  
   - 04/01/04 to 09/30/04: 3

9. Author: ____________________________

10. Author Affiliation:  
    - Local paper: 1  
    - Wire: 2  
    - Reader: 3  
    - Other: 4

11. Section:  
    - Top Stories: 1  
    - National: 2  
    - Local: 3  
    - Arts / Entertainment: 4  
    - Business: 5  
    - Life: 6  
    - Other: 7

12. Title Rating:  
    - Negative: 1  
    - Neutral: 2  
    - Positive: 3

13. Older Adult or Aging-related Interest Evident in Title:  
    - No: 0  
    - Yes: 1

14. Scope:  
    - Local: 1  
    - State: 2  
    - National: 3  
    - International: 4

15. Photo:  
    - No: 0  
    - Yes: 1

16. On-site Professional Resource:  
    - No: 0  
    - Yes: 1

17. Off-site Professional Resource:  
    - No: 0  
    - Yes: 1

18. Elder Layperson:  
    - No: 0  
    - Yes: 1

19. Other Layperson:  
    - No: 0  
    - Yes: 1

20. Count:  
    - No: 0  
    - Yes: 1

21. Money:  
    - No: 0  
    - Yes: 1

22. Calculation:  
    - No: 0  
    - Yes: 1