



## New stories, same Stigma: Framing analysis of news articles about people with alcohol-related conditions needing liver transplants

Whitney Langlee<sup>a</sup>, Divya Kalluri<sup>a</sup>, Rivka Abedon<sup>a</sup>, Aura T. Teles<sup>a</sup>, Janetta Brundage<sup>a</sup>,  
Po-Hung Chen<sup>b,c</sup>, Andrew M. Cameron<sup>a</sup>, Hannah C. Sung<sup>a</sup>, Olivia S. Kates<sup>d,e,\*</sup>

<sup>a</sup> Department of Surgery, Johns Hopkins University School of Medicine, Baltimore, MD, USA

<sup>b</sup> Division of Gastroenterology & Hepatology, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA

<sup>c</sup> Division of Addiction Medicine, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, USA

<sup>d</sup> Department of Medicine, Division of Infectious Disease, Johns Hopkins University School of Medicine, Baltimore, MD, USA

<sup>e</sup> Berman Institute of Bioethics, Johns Hopkins University, Baltimore, MD, USA

### ARTICLE INFO

#### Keywords:

Alcohol use  
News media  
Qualitative  
Framing analysis  
Liver transplantation  
Alcohol-related liver disease  
Public perception

### ABSTRACT

**Background:** Public stigma surrounding alcohol use disorder (AUD) negatively impacts people with alcohol-related liver disease (ALD) in need of liver transplants (LT). Representations of LT for ALD are socially constructed in part through media, but media on this topic has been underexplored in current research.

**Methods:** Research team members conducted systematic searches during 7/2022-5/2024 for online, publicly available articles about LT for ALD within leading English-language news sites in the US by monthly visits (n = 24). Using inductive framing analysis, we coded and identified patterns in news articles (n = 42) from 1990 to 2021 to generate frames.

**Findings:** Our inductive analysis generated 4 main frames: (a) making individual exceptions: good people in a bad group, (b) appealing to societal costs: individual actions putting a strain on society, (c) questioning professionals' judgements: doctors' discretionary power, and (d) portraying healthcare as a competition: unfair play in a zero-sum game. Media characterized people with ALD as less deserving of liver transplant, but with individual exceptions. Articles described people with "self-induced" illnesses as irresponsible towards themselves, other LT candidates, and society; doctors as "gatekeepers" with discretionary power over how to apply criteria or rules; and the liver transplant waitlist as a competitive zero-sum game in which people with ALD are or should be deprioritized.

**Discussion:** News articles reflect our society's stigmatization of alcohol-related conditions as well as misconceptions about transplant listing and allocation. Such mischaracterizations can further marginalize stigmatized patients with alcohol-related conditions in need of LTs. We offer recommendations for public communications, including avoiding representations of patients with ALD as exceptions to the norm and contextualizing LT for ALD within the context of public health and social and systemic factors.

### 1. Introduction

Public stigma surrounding alcohol use disorder (AUD) is pervasive and one of the most highly stigmatized conditions (Schomerus, 2014; Schomerus et al., 2011). Negative public perceptions and stereotypes of individuals with AUD and alcohol-related conditions often reaches a pitch in the context of liver transplantation where donated organs are seen as a scarce resource. As alcohol-related liver disease (ALD) has become one of the leading indications for liver transplantation (LT) in the US, UK, and Canada (Ivanics et al., 2021; Julien et al., 2020; Masson

et al., 2021; Singal & Mathurin, 2021), LT for ALD continues to be debated in public, clinical, and research discourse (Mellinger & Volk, 2018). To sustain its practices, the transplantation field depends on engaging the public to participate in organ donation while ensuring the public that donated organs are allocated fairly. One persistent concern is that the public may look unfavorably upon liberal use of LT for patients with ALD, and, thus, be less willing to donate organs (Donckier et al., 2014; Wu et al., 2018).

Some transplant centers have set exclusionary criteria for patients with ALD in need of LT, most notably the "6-month rule," a pre-transplant requirement for abstinence from all alcohol consumption.

\* Corresponding author. Johns Hopkins University, 601 N Wolfe Street Baltimore, MD, 21205, USA.

E-mail address: [olivia@jhu.edu](mailto:olivia@jhu.edu) (O.S. Kates).

<https://doi.org/10.1016/j.ssmqr.2025.100567>

Received 2 January 2025; Received in revised form 14 March 2025; Accepted 4 May 2025

Available online 5 May 2025

2667-3215/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

### Abbreviations

LT	Liver Transplant
ELT	Early Liver Transplant
ALD	Alcohol-related Liver Disease
AUD	Alcohol Use Disorder

Justifications for the “6-month rule” have included that the ability to maintain abstinence from alcohol pre-transplant serves as a predictor for post-transplant alcohol use and health outcomes. Though many now consider the “6-month rule” arbitrary and problematic (Brundage & Kates, 2023), nearly all US, UK, and Canadian transplant centers evaluate alcohol use and abstinence time in some way to determine transplant candidacy (Lim et al., 2022; Masson et al., 2021; Mitchell et al., 2023; Syed et al., 2020).

The general public’s understanding and opinions of LT for ALD and the “6-month rule” are likely shaped through media. Media portrayal can influence the public’s willingness to donate organs and support for organ donation and transplantation generally, as has been shown in prior research (Ayorinde et al., 2020; Bail, 2016; Morgan et al., 2005; Siegel, 2009). Additionally, as clinical providers are also members of the public and consumers of media, media portrayal can impact clinical decision-making for transplant listing, inform the development and an implementation of practice guidelines, or shade clinicians’ own reflections on their practice and their profession. What clinicians believe about public perceptions may also influence clinical decision-making, as transplant centers seek to be trustworthy stewards of donated organs.

Framing analysis, a qualitative analysis approach, has been used in prior research studies to understand how the media speaks about organ donation broadly (Moloney & Walker, 2002; Morgan et al., 2007). Framing analysis is useful for assessing what the media selects and makes salient to define problems, identify causes, or make moral judgments (Entman, 1993; Matthes, 2009). Empirical studies have shown that news media framing can influence individuals’ attitudes, affect, learning, and interpretations related to an issue (Lecheler & Vreese, 2019). There is no singular definition of framing or frames. Here, we adopt Reese’s (2007) conceptualization of framing as a “bridging model” between disciplines or academic and professional spaces. We define frames as organizing structures of meaning that indicate what the issue is, what ideas take precedence, and what ideas are connected.

Our study conducted framing analysis of news articles from major English-language-based media sources covering LT for ALD in the US, UK, and Canada. The aim of this study was to identify news media frames that could reinforce stigmatization of patients with ALD in need of LT, as well as characterizations of transplant practices or systems that could affect patients’ access to LT. This analysis can help to inform strategies to further educate the public and maintain public trust in LT for ALD and organ transplantation overall.

## 2. Theoretical framework

Although the impact of public stigma on discrimination against patients with ALD in need of treatment, including LT, has been discussed (Keyes et al., 2010; Kilian et al., 2021; Morris & Schomerus, 2023; Schomerus et al., 2022), the social construction of public stigma around LT for ALD is not well delineated in current literature. From a social constructionist perspective, ideas are historically and culturally created or perpetuated through social practices and language (Berger & Luckmann, 1966). Public stigma refers to negative beliefs, prejudices, stereotypes, or discrimination towards individuals or groups (Corrigan & Watson, Amy C., 2002). Relatedly, structural stigma relates to systemic or institutional policies or practices which exclude or marginalize individuals or groups (Hatzenbuehler, 2016; Link & Phelan, 2001). Public

and structural stigma can directly impact transplant outcomes through the public’s withdrawal of participation in organ donation or healthcare providers’ differential practices of referring and selecting a patient for transplant (Schomerus et al., 2022).

The media is one sector that plays a large role in the social construction of public perceptions of transplant-related practices. From a Foucauldian discourse perspective, the media and the public can be viewed as a power relation in which the media acts as an institution that produces and socially legitimizes knowledge for public consumption (Khan & MacEachen, 2021). Through analyzing media, we can identify salient ideas and frames of understanding that are selected and described in the social construction of public stigma. This work of de-constructing public stigma of LT for ALD is critical to facilitate conversations with the public around transplant practices, create public educational materials related to alcohol-related conditions, clarify clinical decision-making processes, and develop ethical guides for clinical practice.

## 3. Researcher reflexivity

Authors of this paper support the destigmatization of ALD and other alcohol-related conditions. We are advocates of LT for ALD and are part of a larger research study investigating outcomes and ethics of Early Liver Transplantation (ELT), or LT with less than six months of alcohol abstinence. This study expanded upon our research surveying the public and interviewing transplant recipients and clinical providers at the Johns Hopkins Comprehensive Transplant Center, a leading center in ELT. HS, a qualitative methodologist, guided data collection and analysis. OK, a transplant infectious diseases specialist and bioethicist, provided clinical and ethics expertise and guided manuscript development and finalization. AC, the director of the Department of Surgery, and PC, a transplant hepatologist certified in addiction medicine, provided clinical expertise and contributed to reviewing and finalizing the manuscript. Our multi-disciplinary team allowed us to interpret news media from various clinical viewpoints and research interests.

## 4. Methods

### 4.1. Identification of news articles

Research team members (WL, DK, RA, and AT), guided by qualitative methodologist HS, independently conducted searches in July 2022, December 2022, July 2023, and May 2024 for publicly available/accessible, online news articles without publication date restrictions (Fig. 1). We first identified news sites (n = 24; Table 1) based on 2022/2023 PressGazette’s source data of leading English-language news sites in the US by monthly visits. Given the global reach of the internet, we included news sites based in multiple countries (i.e., US, UK, Canada) but commonly trafficked within the US. We excluded news aggregators (n = 4) that curated news from other sources (e.g. “Google News,” “Yahoo News”). Using Google’s search function, we used the formula “site:[news outlet]” with the following keywords entered separately: “liver,” “transplant,” “alcohol,” “alcoholic,” “alcohol related liver disease,” or “liver transplants for alcohol.” We included news articles related to (a) LT for people with a history of alcohol use or ALD or (b) ethics of LT or organ allocation in the context of alcohol use. We excluded news articles that (a) repeated or reposted previous news articles or (b) did not contain enough substantive material regarding LT for ALD for analysis (e.g., a single mention of ALD or LT). We gathered and downloaded news articles for analysis (n = 42; Table 2).

### 4.2. Coding and framing analysis of news articles

Research team members (WL, DK, HS) trained in qualitative data analysis inductively analyzed articles. After data review, we iteratively generated codes to categorize data based on topics, characterizations of

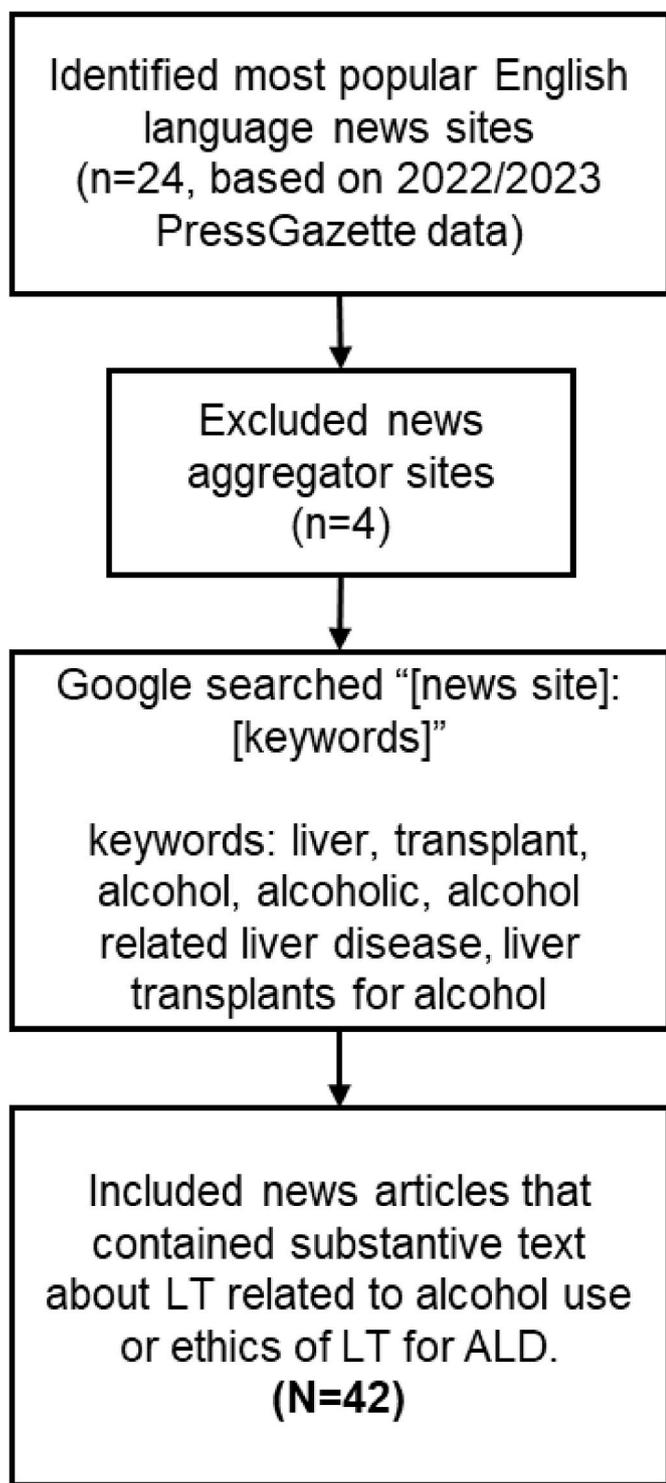


Fig. 1. Article Identification Flow Diagram.

people/groups, terms/language, references to data (e.g., research study results), references to sources (e.g., doctors or experts), and anecdotes. The analysis team independently coded news articles and resolved disagreements via consensus. Then, the team engaged in in-depth discussions to search for patterns within and across news articles. We engaged in further discussions and mind-mapping to develop common or divergent themes. We dialogued our generated themes with social constructionist and discourse theories, frameworks of public and structural stigma, and current research literature on LT for ALD. Through a process of organizing themes and analytic memoing, we generated frames that

Table 1

Leading news sites in the US (n = 24) and number of identified articles about LT for ALD.

News Site	Headquarters	Ranking (based on PressGazette data November 2023)	Number of articles that met inclusion criteria <sup>a</sup>
New York Times	US	1	5
CNN	US	2	5
Fox News	US	3	5
MSN	US	4	–
People	US	5	0
Yahoo Finance	US	6	–
USA Today	US	7	0
Google News	US	8	–
New York Post	US	9	0
Daily Mail	UK	10	7
Washington Post	US	11	1
BBC	UK	12	10
Yahoo News	US	13	–
CNBC	US	14	0
Forbes	US	15	0
Newsweek	US	16	0
Guardian	UK	17	4
Wall Street Journal	US	18	0
AP News	US	19	0
NBC Business	US	20	2
Insider	US	NR <sup>b</sup>	0
Huffington Post	US	NR <sup>b</sup>	4
NPR	US	NR <sup>b</sup>	2
Vice News	US	NR <sup>b</sup>	0

<sup>a</sup> Inclusion criteria: substantive text about (a) liver transplants for people with a history of alcohol use or alcohol-related liver disease or (b) ethics of liver transplantation or organ allocation in the context of alcohol use. The dash “–” signifies a news aggregator site that was excluded from the search for articles.

<sup>b</sup> NR = no ranking. The news sites were not rated in the top 20 for the year 2023 but were among the top news sites in 2022. Ranking data for some news sites could not be traced back to the original source.

represented meaningful, underlying structures that cut across the concrete particulars of the data and reflected social views about the topic of interest. We re-reviewed news articles in detail to gather supporting and contrasting evidence for each frame. We used office suite tools (Word, Excel, PowerPoint, etc.) for all analysis; no qualitative data analysis software was used.

#### 4.3. Ensuring quality and rigor of analysis

To enhance confirmability and dependability, a research team member (RA), who was not involved in coding or framing analysis, independently read each article and selected excerpts for identified frames. This process helped to check for conceptual or thematic drifts that may have occurred during the analysis process and ensure that generated frames were grounded in our data sources. RA agreed with the conceptualization of frames and helped to finalize frames and excerpts. Discussion with OK, a bioethicist, focused our frames on ethically relevant topics based on prior literature and discourse in the transplantation field.

#### FINDINGS.

Our analysis generated 4 main frames contributing to the social construction of public stigma surrounding LT for ALD.

#### 4.4. Making individual exceptions: good people in a bad group

News articles reflected negative perceptions of people with alcohol-related conditions, often referring to them as “drinkers,” “heavy

**Table 2**  
News articles (N = 42) included for framing analysis.

Year	News Article Title	News Site
1990	Doctor's World; A Question of Ethics: Should Alcoholics Get Transplanted Livers?	New York Times
1995a	Getting on a Transplant List Is the First of Many Hurdles	New York Times
1995b	The Nation; Transplants, Morality and Mickey	New York Times
1996	In Shift, Prospects for Survival Will Decide Liver Transplants	New York Times
1999	Alcoholics 'passed over' for transplants	BBC
2002	Liver deaths rise 'linked to alcohol'	BBC
2003	Should alcoholics get liver transplants?	BBC
2005	Alcohol abusers should not get transplants, says Best surgeon	Guardian
2006	Smokers and alcoholics 'should pay for operations'	Guardian
2009a	Man refused liver transplant dies	BBC
2009b	Should a young alcoholic be denied a life-saving transplant?	BBC
2009c	Sick youth cannot jump donor list	BBC
2009d	Family challenge transplant rules	BBC
2009a	'Binge' row as liver transplants for heavy drinkers rise 67 % under Labour to one in four of total	Daily Mail
2009b	'Please help me Mum, I don't want to die': Last words of alcoholic, 22, who died after being refused liver transplant	Daily Mail
2009	Transplant row over organs for drinkers	Guardian
2010	Recovering alcoholics given one in five liver transplants	Daily Mail
2011	Some alcoholics should NOT have to prove sobriety before liver transplant, say experts	Daily Mail
2011	New liver for alcoholics? Study reopens debate	NBC
2012	Alcoholic man aged 26 needs liver transplant	BBC
2013	'Liver Disease Crisis' Due to alcoholics costing NHS more each year, warns Diane Abbott MP	The Huffington Post
2014	More alcoholic liver patients 'eligible for transplant'	BBC
2014a	Alcoholics to get liver transplants on NHS for the first time but critics say those who bring ill-health on themselves shouldn't get help	Daily Mail
2014b	How dozens of patients have been barred from liver transplant operations for refusing to give up alcohol	Daily Mail
2014	NY liver transplant recipient guilty of drunken driving, alcohol level 7 times legal limit	Fox News
2014	Heavy drinkers to be considered for NHS liver transplants	Guardian
2015a	22-Year-Old alcoholic denied liver transplant, faces death	Fox News
2015b	Binge-drinking teen with liver failure left hospital bed to go to pub	Fox News
2015c	Study stirs debate over transplants for alcoholics	Fox News
2015	The cost of living – alcohol and the NHS funding debate	The Huffington Post
2017	Canada challenge to six-month sobriety rule for liver transplants	BBC
2017	Delilah Saunders denied a liver transplant, her friends say	The Huffington Post
2017	When drinkers suffer liver disease, should getting a transplant be so hard?	Washington Post
2018	Canadians are dying waiting for live-saving organs	The Huffington Post
2019	Alcohol destroyed their livers. Now, they're increasingly getting new ones	CNN
2019	Alcohol-related disease overtakes hepatitis C as top reason for liver transplant	NBC
2021	Need for liver transplants due to heavy drinking soared during the pandemic, study finds	CNN
2021	More patients have needed liver transplants amid rise in alcohol consumption during COVID pandemic, study finds	Daily Mail
2021	Waiting list registrations and liver transplants linked to alcoholic hepatitis surge during COVID-19 pandemic	Fox News
2021a	Sharp, 'off the charts' rise in alcoholic liver disease among young women	NPR
2021b	In the quest for a liver transplant, patients are segregated by prior alcohol use	NPR
2021	Who Deserves a Lifesaving Organ?	New York Times

drinkers," or "alcoholics." The articles implied or leaned into conceptualizations of alcoholics as "dishevelled [British spelling] down and outs, swigging vodka or extra strength cider on a park bench" (Huffington Post, 2015).

Articles emphasized mitigating or humanizing circumstances to identify sympathetic individuals within the "alcoholic" group as deserving of transplants. One prevalent mitigating circumstance was lack of repeated alcohol-related illnesses or other stark social and legal consequences of alcohol use as wake-up calls. For example, a 2009b Daily Mail article included a quotation from a mother of a "young alcoholic" named Gary Reinbach who was denied LT in London, England (Daily Mail, 2009b). The mother made a distinction between "someone who is in and out of the hospital all the time and keeps damaging themselves" and her son, who "made a mistake and never got a second chance." The story was covered again by Fox News in 2015a, including quotation from a doctor who said the "young man did not know any better" and supported transplanting him "because it is the first time he has come to the hospital with an alcohol-related problem" (Fox 2015a). According to the articles, Gary Reinbach did not receive a transplant and died at 22 years old.

News articles presented humanizing stories of people who had been denied LT by focusing on their life story, supportive family members, and circumstances behind their ALD. Personal attributes that the media tended to emphasize as the "new type of alcoholic" (Huffington Post, 2015) included being young, being unlucky due to genetics or life circumstances, and being a woman. Young age and luck were often mentioned together; articles described young people with ALD as drinking the same amount as their peers but having the misfortune of experiencing devastating health outcomes. In portrayals of women with ALD, drinking alcohol was often linked with experiencing trauma. Moreover, articles suggested that a rise in alcohol drinking and associated health consequences among young people and women warranted concern and empathy.

#### 4.5. *Appealing to societal costs: individual actions putting a strain on society*

News articles portrayed a societal system in which individual choices have tangible consequences for others and for society. People whose illnesses were "self-induced" through excessive alcohol consumption were deemed irresponsible to themselves for not taking care of their health *and* to others in need of LT or to society with an increasing need for scarce organs (Washington Post, 2017). Some articles reported concern about increased "strain" on the transplant system (Huffington Post, 2015) caused by individuals with ALD. Relatedly, some articles included concerns that, if the public sees an increase in LT for people with ALD, potential organ donors will lose faith in the transplant system and decline to donate based on the perception that organs are not being allocated appropriately (Guardian, 2014).

More recent articles introduced doubts about the validity of concerns related to LT for people with ALD. A 2019 NBC article reported common concerns (return to alcohol use post-transplant without proven pre-transplant abstinence, public withdrawal from organ donation), but also included a quotation from one physician saying, "Neither of those attitudes are based on any facts or data." Other articles more directly addressed concerns related alcohol use, making statements such as, "Now, as the understanding of addiction evolves – to view it as a disease rather than a personal failing – many surgeons and families say the six-month wait unfairly penalizes those with substance use disorder" (NPR, 2021a). A 2019 CNN article included a quotation from a physician saying that some people "carry a genetic risk" for ALD and asking "Do you blame people born with the wrong genes or not?" (CNN, 2019) Such news articles called into question whether alcohol-related conditions or addiction should be considered individual failings or whether they are better understood as illnesses in which patients are relatively blameless.

While the frame of individual actions straining society was more

salient, a few articles conceptualized the opposite: society failing individuals. Such articles pointed to the low cost of alcohol and permissive regulatory policies that make it difficult for consumers to make healthier choices. A 2013 Huffington Post article included a quotation from a public health minister calling for “a comprehensive alcohol strategy. It should address: licensing reforms; marketing; advertising; education; public awareness and a minimum unit price” (Huffington Post, 2013). Recent articles after the start of the COVID-19 pandemic framed rising alcohol consumption as a public health crisis, with more emphasis on underlying social and structural causes of rising alcohol use, including ease of access to alcohol, pervasive drinking culture, prior trauma, and increased stress. A 2021 CNN article suggested larger societal trends influenced ALD during the COVID-19 pandemic and included a quotation from researchers stating that their study “provides evidence for an alarming increase in (alcoholic hepatitis) associated with increasing alcohol misuse during COVID-19 and highlights the need for public health interventions around excessive alcohol consumption” (CNN, 2021).

#### 4.6. Questioning professionals' judgements: doctors' discretionary power

News articles positioned doctors as powerful “gatekeepers” (New York Times, 1995a) of treatment who may be untrusting of individuals with alcohol-related conditions. A 2017 Washington Post article included a quotation from an LT recipient that highlighted a similar portrayal of doctors: “There has to be a better way than the doctors saying, ‘Prove to me that I should let you live’ and the patient saying, ‘I made a mistake — do I have to keep paying for it?’” (Washington Post, 2017) Articles expanded that doctors’ negative perceptions about people with ALD is in part a reflection of negative societal attitudes when doctors weigh public opinion and public trust in the donation system. In articles, doctors mentioned concerns that LT for ALD would lead to negative reactions from the public finding out that “alcoholics” were getting transplanted at such high rates.

News articles characterized doctors as having discretionary power over whether to apply the “6-month rule” when “life and death is at stake” (Washington Post, 2017). For example, a 2009b BBC article described the circumstances of Gary Reinbach’s death (see first frame) as: “Specialists denied him a donor organ because applicants must prove they can remain sober outside hospital for six months before the operation” (BBC, 2009b). The article also raised the paradox that some people may be unable to prove that they could stay sober because they are too sick to leave the hospital: “Tragically for Gary, his condition was so severe that doctors were unable to discharge him — preventing him from fulfilling the criteria for the surgery he longed for” (BBC, 2009b). Articles critical of the rule often pointed out its arbitrary origins, lack of predictive power, and potential to produce contradictory situations, such as Gary Reinbach’s. Many of these articles cited the 2011 Mathurin et al. research study (Mathurin et al., 2011) (which found similar outcomes for patients who underwent LT for ALD with or without six months of alcohol abstinence).

Despite concerns, news articles reported that leaders in the transplantation field and doctors were hesitant to call for the removal of the “6-month rule,” and some would advocate not to “throw the baby out with the bath water” (BBC, 2017). For example, a 2019 NBC article paraphrased the perspective of a UNOS representative, who “agreed that the ‘rule’ is arbitrary and not evidence-based but said that it should be up to transplant centers to decide who gets listed for an organ” (NBC, 2019). Some articles similarly described doctors wanting to keep the “6-month rule” but to be able to apply it at their discretion. Other articles reported that there was no consensus in the profession, with some doctors advocating for removing the rule.

#### 4.7. Portraying healthcare as a competition: unfair play in a zero-sum game

News articles often simplified the liver transplant waitlist and allocation system to a zero-sum game, where one person’s receipt of a transplant was another’s irrevocable (often fatal) loss. Articles often included quotations of doctors saying, “There aren’t enough organs to go around” (NPR, 2021a) or “The unfortunate reality is that when one person in Canada receives a life-saving organ, another person will die waiting. Fairness in access is paramount for these life-or-death decisions.” (Huffington Post, 2018).

The articles conceptualized multiple access points culminating in LT, beginning with waitlisting. Not being added to the waitlist was characterized as portending almost certain death. After waitlisting, articles conceptualized organ allocation as the second point of access. Articles described that an available donor organ for which only one recipient would be chosen put people on the waitlist in direct competition with each other. Within such a system, articles presented people with alcohol related conditions as a group that needed to be deprioritized – for waitlisting, allocation, or both – relative to other patients with whom they were seen as competing. A 1995b New York Times article included a statement from an ethicist saying “alcoholics should go to the bottom of the transplant list. ‘It’s not so much blaming people for their disease,’ he said, ‘as saying that some are more blameless than others’” (New York Times, 1995).

Although the article quoted above is now 30 years old, more recent news articles continued to both explicitly and implicitly invoke moral comparisons between or among candidates in terms of blameworthiness, deservingness, or wastefulness. A 2009a Daily Mail article included a quotation from a mother of an organ donor saying, “If there are two people side by side wanting a liver, and both have the right tissue match, and one is an alcoholic and one isn’t, there’s no contest - you take the one who’s not an alcoholic, they are more entitled” (Daily Mail, 2009a). Another article quoted the husband of a patient with ALD: “Finally, they told us she was denied due to alcoholism. They said they didn’t want to waste a liver. I can’t even tell you how sad my wife was, knowing she was going to die” (Washington Post, 2017). The article continued, “Five weeks later, she [died]. She’d been sober for four months.”

Moreover, news articles depicted those already on the waitlist for liver disease due to other conditions as losing access to transplantation when patients with alcohol-related conditions “jump” to the top of the list due to their dire prognosis (NPR, 2021b). Two articles (CNN, 2019; NBC, 2019) presented explanations for ALD becoming the “top reason for liver transplants.” They noted that newer treatments for hepatitis C virus (HCV) reduced the need for transplants for that indication and a “growing acceptance” within the transplant community to transplant a patient with ALD (CNN, 2019). The articles posited that patients with ALD were “overtak[ing]” patients with HCV on the transplant list” (NBC, 2019).

## 5. Discussion

News can reflect and shape perceptions of medical practices and, therefore, can affect both public support for those practices as well as clinical decision-making for transplant listing. Our findings generated four frames (good people in a bad group, individual actions putting a strain on society, doctors’ discretionary power, and unfair play in a zero-sum game) within news media that, in part, socially construct public stigma of LT for ALD. The identified frames reflect the four entities discussed frequently in transplant: patients, donors or society, doctors, and the organ allocation system. We interpret the frames as one conceptual structure of the stigmatization of alcohol-related conditions that can lead to deprioritizing a patient with ALD for LT.

Blemishing an individual’s character and purporting dangers of this individual to others in society are key features of stigma as well as one of the means by which members of society use to “other” individuals or

groups (Goffman, 2022). Stigma communication, more specifically, involves marking a group of people, labelling them as a separate entity, assigning responsibility to those people for their placement in the group, and linking them to a social danger or negative consequence (Smith, 2007). Our analysis revealed that “alcoholics” were marked and labelled as a distinct, separate group. Although more recent news articles problematized the “6-month rule” by highlighting “exceptions” to the negatively portrayed “alcoholic” group, they simultaneously reinforced the idea that most people in the “alcoholic” group were not deserving of LT and were burdens on society.

Stigmatization of people with alcohol-related conditions found across analyzed news articles was consistent with a prior study by Serota et al. (2020), which used a different qualitative analysis approach. The prior study identified personal responsibility as the foregrounded representation in Canadian media about LT for ALD. Our study expands upon their findings by encompassing a wider geographic context and delineating broader normative judgments about individual deservingness and claims of strain on health systems. Similar to Serota et al.’s (2020) work, biological, social, and political (or structural) factors that influence alcohol use and overall health were under-emphasized in our data sources, although a shift towards a systems-perspective was seen in our analyzed articles after 2020.

News articles also emphasized stigma surrounding alcohol use as operating through transplant professionals’ judgements, noting limited understanding of alcohol-related conditions and lack of consensus on how to treat patients with ALD among transplant providers. Representations of discordance within the healthcare field may imply that assessments of alcohol-related conditions are a matter of personal biases rather than part of professional practices to determine appropriate treatment. Moreover, news articles noted that doctors were fearful of public backlash without directly investigating or addressing hypothesized public reactions to LT for ALD. No door was left open to the possibility that the public might have diverse or nuanced perspectives—some of which might be neutral or even positive towards LT for ALD. Instead, news articles’ representation of doctors’ unexamined prioritization of a monolithic, hypothetical public over critical examination of medical and ethical considerations suggested one of many barriers for patients with ALD in need of LT.

From the 1990s to the 2020s, news articles varied in their focus and scope, with some articles highlighting individual stories and others commenting on clinical practices or systems. However, all analyzed news articles consistently presented simplified representations of transplantation, often distilling down to two patients, one organ, and one time point. Zero-sum game characterizations of the transplantation system often served as justification for deprioritizing patients with ALD for LT, thus, perpetuating stigmatizing representations of individuals with alcohol-related conditions. The reality of organ allocation is much more complicated (Skaro et al., 2015). The notion of “two people side by side” who are otherwise equal except that one is an alcoholic is a false equivalency that does not exist in practice. Current LT allocation policy generally proceeds in a “sickest first” order. Candidates with severe ALD tend to be sicker according to criteria used in liver allocation, than the average for the liver transplant waiting list. If, in practice, transplantation is not offered to a candidate with severe ALD because of their alcohol use, alcohol use is not a “tie breaker,” but a high-priority criterion superseding even medical urgency. While reasonable criteria for excluding individuals from transplantation regardless of medical urgency may exist, establishing and defending such criteria is more morally complicated than a “tie breaker.” By treating transplantation as a simple, zero-sum game, news articles reinforced facile moral assessments biased against people with ALD, while obscuring the true complexities of moral decision-making in transplantation. That many of the quotations supporting this frame were taken from transplant professionals highlights an important need for further education and strategies for effective public and media communication to avoid reductive characterizations of transplantation.

Serota et al. (2020) concluded their analysis of media representations of responsibility with recommendations for journalists including the use of de-stigmatizing person-first language; we echo these recommendations and offer new ones based on our findings (Serota et al., 2020). Our recommendations are primarily directed at transplant providers and professionals who are cited as experts in the media and thus well-positioned to be active agents for positive change. To avoid reinforcing stigmatization by characterizing individuals with alcohol-related conditions as “good people in a bad group,” transplant providers should purposefully frame LT for ALD based on ethical principles of justice and equity and celebrate individual cases (with appropriate authorization) as examples of transplant practices seeking to reduce discriminatory clinical decision-making, rather than exceptions to the norm. To avoid framing individuals with alcohol-related conditions as a “strain on society,” providers should seek to understand and communicate about LT for ALD in the context of public health and the social and systemic factors that shape alcohol consumption and organ availability, encouraging nondiscriminatory living and deceased organ donation. To appropriately contextualize “doctors’ discretionary power” in transplant listing decisions, providers should emphasize that transplant evaluations comprise multiple assessments made by collaborative, cross disciplinary teams, and advocate for transparent standards that ensure access to LT for patients with ALD. Finally, to avoid characterizations that individuals with alcohol-related conditions are engaging in “unfair play,” providers should avoid misrepresentations of the organ allocation system as a highly competitive or zero-sum game, and should emphasize the importance of patients’ current medical urgency and future expected benefit in transplant decisions, rather than prior (even if recent) alcohol use behaviors.

Our study investigates news media framing that contributes to the social construction of stigma related to LT for ALD, however we acknowledge limitations. First, because we selected popular news sites and articles written in English, these findings do not represent framing within all news or media about this topic. Second, some analyzed news articles referred to transplant systems outside the US and included views that were specific to healthcare systems in the UK or Canada. However, transplant practices for patients with ALD and overall views about alcohol-related conditions or ethical issues in LT were similar across all news articles from all sources in our sample. Media framing and transplant practices in outside of these three English-speaking, Western nations were not assessed in our study and have the potential to reveal unique insights, particularly if studied by or in collaboration with researchers in those settings. Third, due to time and space constraints, we were unable to analyze images accompanying the articles which could add another layer of interpretation to the identified frames. Future studies can investigate images as well as other forms of contemporary media, such as archived news videos, podcast episodes, and social media posts.

## 6. Conclusion

News articles reflect society’s persistent stigmatization of alcohol-related conditions, which may affect the public’s view of what is fair in LT. Our findings identify key areas to improve communication with the public about alcohol-related conditions, related to our four identified frames. For each of these, we have made recommendations for transplant providers and other professionals who engage with the media and provide perspectives as experts. As members of this group ourselves, we believe that we bear special responsibility for media framing of LT for patients with ALD, and for the impact that problematic media framing may have on our patients and our peers. Thankfully, we are well-positioned to serve as agents for positive change in this domain, by teaching one another, teaching patients and families, and teaching the public through our interactions with the media. Future studies are needed to examine media portrayal of other domains in transplantation including LT for other indications, to examine other forms of

communication including electronic health records, and to translate these findings into tools for improving provider and public communication, education, and, ultimately, trust.

### CRedit authorship contribution statement

**Whitney Langlee:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Divya Kalluri:** Writing – review & editing, Investigation, Formal analysis, Data curation. **Rivka Abedon:** Writing – review & editing, Validation, Resources, Project administration, Data curation. **Aura T. Teles:** Writing – review & editing, Validation, Resources, Project administration, Data curation. **Janetta Brundage:** Writing – review & editing, Investigation, Formal analysis, Data curation. **Po-Hung Chen:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization. **Andrew M. Cameron:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization. **Hannah C. Sung:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis, Conceptualization. **Olivia S. Kates:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

### Funding

This work was supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA; 2P50AA027054-06). The analyses described here are the responsibility of the authors alone and do not necessarily reflect the views or policies of the National Institutes of Health (NIH) or its departments, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

### Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Andrew Cameron reports financial support was provided by National Institute on Alcohol Abuse and Alcoholism. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### References

- Ayorinde, J. O. O., Saeb-Parsy, K., & Hossain, A. (2020). Opportunities and challenges in using social media in organ donation. *JAMA Surgery*, 155(9), 797. <https://doi.org/10.1001/jamasurg.2020.0791>
- Bail, C. A. (2016). Cultural carrying capacity: Organ donation advocacy, discursive framing, and social media engagement. *Social Science & Medicine*, 165, 280–288. <https://doi.org/10.1016/j.socscimed.2016.01.049>
- Berger, P., & Luckmann, T. (1966). The social construction of reality: A treatise in the sociology of knowledge. In *Social theory Re-wired* (pp. 110–122). Routledge.
- Brundage, J., & Kates, O. S. (2023). Outcomes, attitudes, and updated ethical analysis of early liver transplantation for severe alcoholic hepatitis. *Current Transplantation Reports*, 10(4), 167–172. <https://doi.org/10.1007/s40472-023-00417-1>
- Corrigan, P. W., & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry*, 1(1), 16–20.
- Donckier, V., Lucidi, V., Gustot, T., & Moreno, C. (2014). Ethical considerations regarding early liver transplantation in patients with severe alcoholic hepatitis not responding to medical therapy. *Journal of Hepatology*, 60(4), 866–871. <https://doi.org/10.1016/j.jhep.2013.11.015>
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
- Goffman, E. (2022). *Stigma: Notes on the management of spoiled identity*. Penguin Random House.
- Hatzenbuehler, M. L. (2016). Structural stigma: Research evidence and implications for psychological science. *American Psychologist*, 71(8), 742–751. <https://doi.org/10.1037/amp0000068>
- Ivanics, T., Shwaartz, C., Claasen, M. P. A. W., Patel, M. S., Yoon, P., Raschzok, N., Wallace, D., Muaddi, H., Murillo Perez, C. F., Hansen, B. E., Selzner, N., & Sapisochin, G. (2021). Trends in indications and outcomes of liver transplantation in Canada: A multicenter retrospective study. *Transplant International*, 34(8), 1444–1454. <https://doi.org/10.1111/tri.13903>

- Julien, J., Ayer, T., Bethea, E. D., Tapper, E. B., & Chhatwal, J. (2020). Projected prevalence and mortality associated with alcohol-related liver disease in the USA, 2019–40: A modelling study. *The Lancet Public Health*, 5(6), e316–e323. [https://doi.org/10.1016/S2468-2667\(20\)30062-1](https://doi.org/10.1016/S2468-2667(20)30062-1)
- Keyes, K. M., Hatzenbuehler, M. L., McLaughlin, K. A., Link, B., Olfson, M., Grant, B. F., & Hasin, D. (2010). Stigma and treatment for alcohol disorders in the United States. *American Journal of Epidemiology*, 172(12), 1364–1372. <https://doi.org/10.1093/aje/kwq304>
- Khan, T. H., & MacEachen, E. (2021). Foucauldian discourse analysis: Moving beyond a social constructionist analytic. *International Journal of Qualitative Methods*, 20, Article 16094069211018009. <https://doi.org/10.1177/16094069211018009>
- Kilian, C., Manthey, J., Carr, S., Hanschmidt, F., Rehm, J., Speerforck, S., & Schomerus, G. (2021). Stigmatization of people with alcohol use disorders: An updated systematic review of population studies. *Alcoholism: Clinical and Experimental Research*, 45(5), 899–911. <https://doi.org/10.1111/acer.14598>
- Lecheler, S., & Vreese, C. de (2019). *News framing effects*. Routledge. <https://doi.org/10.4324/9781315208077>
- Lim, N., Kwong, A. J., Jafri, S.-M., Jesse, M. T., Kriss, M., Nair, K., Pillai, A., Shingina, A., Tang, Q., & Desai, A. P. (2022). Heterogeneity in center practices in liver transplantation for alcohol-associated liver disease in the United States. *American Journal of Gastroenterology*, 117(9), 1530–1535. <https://doi.org/10.14309/ajg.0000000000001863>
- Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27(1), 363–385. <https://doi.org/10.1146/annurev.soc.27.1.363>
- Masson, S., Aldersley, H., Leithead, J. A., Day, E., Langford, A., Healy, P., O'Grady, J., Thorburn, D., Parker, C., Shepherd, L., Arndtz, K., Webb, K., & Holt, A. (2021). Liver transplantation for alcohol-related liver disease in the UK: Revised UK Liver Advisory Group recommendations for referral. *The Lancet Gastroenterology & Hepatology*, 6(11), 947–955. [https://doi.org/10.1016/S2468-1253\(21\)00195-3](https://doi.org/10.1016/S2468-1253(21)00195-3)
- Mathurin, P., Moreno, C., Samuel, D., Dumortier, J., Salleron, J., Durand, F., Castel, H., Duhamel, A., Pageaux, G.-P., Leroy, V., Dharancy, S., Louvet, A., Boleslawski, E., Lucidi, V., Gustot, T., Francoz, C., Letoublon, C., Castaing, D., Belghiti, J., ... Duclos-Vallée, J.-C. (2011). Early liver transplantation for severe alcoholic hepatitis. *New England Journal of Medicine*, 365(19), 1790–1800. <https://doi.org/10.1056/NEJMoa1105703>
- Matthes, J. (2009). What's in a frame? A content analysis of media framing studies in the world's leading communication journals, 1990–2005. *Journalism & Mass Communication Quarterly*, 86(2), 349–367. <https://doi.org/10.1177/107769900908600206>
- Mellinger, J. L., & Volk, M. L. (2018). Transplantation for alcohol-related liver disease: Is it fair? *Alcohol and Alcoholism*, 53(2), 173–177. <https://doi.org/10.1093/alcalc/axg105>
- Mitchell, J., Herrick-Reynolds, K., Motter, J. D., Teles, M., Kates, O., Sung, H., Chen, P.-H., King, E., & Cameron, A. (2023). Transplant center attitudes toward early liver transplant for alcohol-associated liver disease. *Transplantation Direct*, 9(9), Article e1532. <https://doi.org/10.1097/TXD.0000000000001532>
- Moloney, G., & Walker, I. (2002). Talking about transplants: Social representations and the dialectical, dilemmatic nature of organ donation and transplantation. *British Journal of Social Psychology*, 41(2), 299–320. <https://doi.org/10.1348/014466602760060264>
- Morgan, S. E., Harrison, T. R., Chewning, L., Davis, L., & DiCorcia, M. (2007). Entertainment (Mis)Education: The framing of organ donation in entertainment television. *Health Communication*, 22(2), 143–151. <https://doi.org/10.1080/10410230701454114>
- Morgan, S. E., Harrison, T. R., Long, S. D., Affii, W. A., Stephenson, M. S., & Reichert, T. (2005). Family discussions about organ donation: How the media influences opinions about donation decisions. *Clinical Transplantation*, 19(5), 674–682. <https://doi.org/10.1111/j.1399-0012.2005.00407.x>
- Morris, J., & Schomerus, G. (2023). Why stigma matters in addressing alcohol harm. *Drug and Alcohol Review*, 42(5), 1264–1268. <https://doi.org/10.1111/dar.13660>
- Reese, S. D. (2007). The framing project: A bridging model for media research revisited. *Journal of Communication*, 57(1), 148–154. <https://doi.org/10.1111/j.1460-2466.2006.00334.x>
- Schomerus, G. (2014). The stigma of alcohol and other substance abuse. In P. W. Corrigan (Ed.), *The stigma of disease and disability: Understanding causes and overcoming injustices* (pp. 57–72). American Psychological Association. <https://doi.org/10.1037/14297-004>
- Schomerus, G., Leonhard, A., Manthey, J., Morris, J., Neufeld, M., Kilian, C., Speerforck, S., Winkler, P., & Corrigan, P. W. (2022). The stigma of alcohol-related liver disease and its impact on healthcare. *Journal of Hepatology*, 77(2), 516–524. <https://doi.org/10.1016/j.jhep.2022.04.026>
- Schomerus, G., Lucht, M., Holzinger, A., Matschinger, H., Carta, M. G., & Angermeyer, M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105–112. <https://doi.org/10.1093/alcalc/agq089>
- Serota, K., Bannerman, G., Hong, R., & Buchman, D. Z. (2020). News Media Representations of Responsibility for Alcohol-Related Liver Disease Requiring Liver Transplantation. *Canadian Journal of Bioethics*, 3(3), 62–75. <https://doi.org/10.7202/1073781ar>
- Siegel, J. T. (2009). *Understanding organ donation applied behavioral science perspectives*. John Wiley & Sons.
- Singal, A. K., & Mathurin, P. (2021). Diagnosis and treatment of alcohol-associated liver disease: A review. *JAMA*, 326(2), 165. <https://doi.org/10.1001/jama.2021.7683>
- Skaro, A. I., Hazen, G., Ladner, D., & Kaplan, B. (2015). Organ transplantation: An introduction to game theory. *Transplantation*, 99(7), 1316–1320. <https://doi.org/10.1097/TP.0000000000000817>

Smith, R. A. (2007). Language of the lost: An explication of stigma communication. *Communication Theory*, 17(4), 462–485. <https://doi.org/10.1111/j.1468-2885.2007.00307.x>

Syed, A., Sadler, M. D., Borman, M. A., Burak, K. W., & Congly, S. E. (2020). Assessment of Canadian policies regarding liver transplant candidacy of people who use alcohol,

tobacco, cannabis, and opiates. *Canadian Liver Journal*, 3(4), 372–380. <https://doi.org/10.3138/canlivj.2020-0005>

Wu, T., Morgan, T. R., Klein, A. S., Volk, M. L., Saab, S., & Sundaram, V. (2018). Controversies in early liver transplantation for severe alcoholic hepatitis. *Annals of Hepatology*, 17(5), 759–768. <https://doi.org/10.5604/01.3001.0012.3134>