# NourishED Research Foundation Fueling Families, Nourishing Youth Caring4Denver Foundation Grant Proposal

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NourishED Research Foundation, Inc. (NRFi)



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## I. NRFi Mission, Motto, & Aims

### 1. NRFi Mission

NourishED Research Foundation (NRFi) is a 501(c)(3) nonprofit research foundation that uses research to empower breakthroughs in the awareness, understanding, prevention, detection, diagnosis, treatment-seeking, treatment access, treatment outcomes, and lived experiences of individuals with eating disorders and other issues related to social justice, equity, diversity, inclusion, stigmatization, access, marginalization, and validation (**JEDI-SAM**). We do this through ongoing community-based outreach and research efforts that prioritize the narratives, lived experiences, barriers, and needs of individuals with eating disorders. We also prioritize equal-access options for treatment and health self-efficacy for eating disorders, for everyone.

#### 2. NRFi Motto

NourishED Research Foundation (NRFi): Nourishing Knowledge, Empowering Hope, for Eating Disorders, for Everyone!

#### 3. NRFi Aims

At NourishED (NRFi), our overall aims are two-fold and align with our overall mission :

#### A. Community-Based Outreach Initiatives

Use community-based outreach initiatives to empower breakthroughs in the awareness, understanding, prevention, detection, diagnosis, treatment-seeking, treatment access, treatment outcomes, and lived



experiences of individuals who experience eating disorders and other issues related to social justice, equity, diversity, inclusion, stigmatization, access, marginalization, and validation (JEDI-SAM).

#### **B.** Community-Based Research

Use **community-based research** to empower breakthroughs in the awareness, understanding, prevention, detection, diagnosis, treatment-seeking, treatment access, treatment outcomes, and lived experiences of individuals with eating disorders and other issues related to JEDI-SAM. We do this through ongoing community-based research efforts that prioritize the narratives, lived experiences, barriers, and needs of individuals with eating disorders and other issues of JEDI-SAM.



## II. NourishED At A Glace

### 1. What is NourishED?

NourishED Research Foundation (NRFi) is a nonprofit organization that raises awareness about eating disorders and their social justice issues to create a better future for everyone.

## 2. Why Should I Care About Eating Disorders?

Eating Disorders impact millions. Binge eating disorder (BED) is the most common eating disorder, with up to 35% of Americans experiencing BED at some point in their life. Despite its high prevalence, BED is widely undetected, under-screened, under-diagnosed, and untreated, leaving millions to navigate their eating disorders without support (see <u>Bray et al., 2022</u> for references).

Current data finds that 75-95% of folks who have binge eating disorder never receive a formal diagnosis or treatment and often fail to recognize the underlying eating disorder psychopathology in themselves see (Bray et al., 2022 for references). They often believe they are "fat and lazy" even though that is far from the case. Moreover, ~85% lack access to healthcare altogether (see Bray et al., 2022 for references).

## 3. Who Can Have an Eating Disorder?

There is an outdated misconception that ascribes eating disorders to "Skinny White Affluent Girls" (the "SWAG stereotype;" see <u>Bray et al., 2022</u> for references). Historically, this demographic saturates treatment populations



and research studies that recruit from treatment centers. However, this demographic represents only ~5-25% of eating disorders.

For example, BED has 2-3 times higher risk and prevalence rates in individuals who use government assistance and in BIPOC and LGBTQ2+ community members, underscoring the social justice roots that underpin binge eating (see <u>Bray et al., 2022</u> for references).

## 4. How are Eating Disorders Related to Social Justice?

NRFi's founder and director, Dr. Brenna Bray (PhD) has identified 12 environmental factor that experts most commonly associate with binge eating disorder (Bray et al., 2022):

- Invalidating environments and experiences.
- Systemic issues and systems of oppression.
- Marginalized and under-represented populations.
- Economic status.
- Stigmatization and its psychological impacts.
- Trauma and adversity.
- Food insecurity.
- Interpersonal factors.
- Social messaging and social media.
- Nutrition scarcity.
- Predatory food industry practices.



• Research and clinical gaps.

## 5. References

Bray B, Bray C, Bradley R, Zwickey H. Binge Eating Disorder Is a Social Justice Issue: A Cross-Sectional Mixed-Methods Study of Binge Eating Disorder Experts' Opinions. Int J Environ Res Public Health. 2022 May 20;19(10):6243. Doi: 10.3390/ijerph19106243. PMID: 35627779; PMCID: PMC9141064. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9141064/</u>

## 6. What We Do At NourishED

At NourishED, we raise awareness about eating disorders and their social justice implications to help support under-resourced individuals with eating disorders and the systems they engage with. We also improve the environments eating disorders occur in to create a better future for everyone. We do this using a four-pronged approach.

# A. Direct Support to Under-Resourced Individuals with Eating Disorders.

At NourishED, we develop and distribute eating disorder resources that are affordable, accessible, and socioculturally sensitive, inclusive, and responsive to provide direct support to the ~75-95% of individuals with eating disorders who navigate their experiences without clinical support.



## **B.** Empower Health and Service Workers to Support Eating Disorder Care.

At NourishED, we provide accredited healthcare trainings for health and social workers. We use research findings to improve eating disorder detection, screening, diagnosis, management, care, and bedside manner. Our trainings help providers avoid the stigmatization, discrimination, and other treatment barriers that lead to healthcare avoidance and other missed opportunities for eating disorder detection, screening, diagnosis, and support.

#### C. Change the Environments Eating Disorders Occur In.

At NourishED, we use social media campaigns, public speaking engagements, and community-centered education and outreach activities to raise awareness about binge eating and its social justice implications and improve the environment eating disorders occur in, creating a better future for everyone.

#### D. Use Research to Improve Eating Disorder Awareness and Support.

At NourishED, we collect and disseminate information about the ~75-95% of under-resourced individuals with eating disorders to better understand and respond to their needs.

#### 7. Join Us!

NourishED is a nonprofit organization (501(c)(3) status under review). We rely entirely on the support and donations of our volunteers, donors, and



subscribers like you. It's supporters like you that keep us going. We deeply value your engagement!

## 8. Want More?

- Follow us on Social Media (LinkedIn, Facebook, Instagram, Twitter, YouTube): https://linktr.ee/nourishedrfi.
- Subscribe to our newsletter here!
- Share our socials and newsletter subscription with your network!
- Donate! We rely on your support! (Donate here).
- Read Dr. Bray's 2022 publication "Binge Eating Disorder is a Social Justice Issue" here.

### 9. Anything Else?

Anything else you want? Please let us know at nourished@nourishedrfi.org.

#### 10. Thank You!

NRFi is a nonprofit organization. We rely entirely on the support and donations of subscribers like you, and we deeply value your engagement. THANK YOU!  $\mathfrak{O}$   $\mathfrak{P} \mathfrak{B}$ In Warmth & Gratitude,



## **III. The NourishED Story**

The NourishED Research Foundation (NRFi) is a nonprofit organization that uses research knowledge and empower hope for under-served individuals and communities with eating disorders (EDs) and their social justice roots. Founded and directed by Dr. Brenna Bray, an esteemed researcher with a track record of federal funding from the National Institute of Health, NRFi leverages Dr. Bray's expertise in Biomedical Science, Neuroscience, Complementary and Integrative Health, and EDs to create a better future for everyone.

Dr. Bray's personal experience with a binge-type ED (BED), her recovery through a community-based, mutual-help intervention, and her clinical service, research, and leadership experiences inspired her to found NRFi. Dr. Bray's research sheds light on a misconception that ascribes EDs to "skinny, white, affluent girls" with anorexia nervosa (the "SWAG stereotype"). This demographic saturates treatment-seeking populations but represents <5% of all individuals with EDs (see Bray et al., 2022). Dr. Bray's research reveals that 85-95% of individuals with EDs never receive a formal diagnosis or treatment, lack access to healthcare, and are historically overlooked in research, clinics, and socioculturally. For example, individuals who use government assistance and members of the BIPOC and LGBTQ2+ communities have 2-3-fold higher risk and prevalence rates of BED than their white cis-gendered heterosexual financially secure peers (Bray et al., 2022). Dr. Bray's research identifies key environmental factors that contribute to EDs, including invalidating environments, marginalization, stigmatization, discrimination, economic and food insecurity, and trauma (Bray et al., 2022). NRFi addresses these factors through



community-based solutions that support individuals and communities with EDs while also improving the environments EDs occur in.

NRFi prioritizes equal-access research and health empowerment options for the ~95% of individuals who suffer with EDs in silence. Our BED platform aims to serve >3 million individuals in Denver with ED resources that are free, virtually accessible, trauma-informed, and socioculturally sensitive and response. We aim to provide accredited training resources for healthcare and social service workers in Denver and nationally that address a variety of under-recognized issues and treatment barriers in EDs (e.g., the "SWAG stereotype," under-screening and diagnosis, healthcare stigmatization and discrimination, treatment costs, access, and scalable treatment options). These trainings support detection and care of underserved EDs and the community members who serve them. Our social media campaigns and public speaking engagements also raise awareness about EDs and their social justice implications to change the environments EDs occur in. We currently reach >30,000 individuals on a budget of <\$200. We believe that through local actions today we can create a better future for everyone. We welcome all who want to join us.

#### **References:**

Bray B, Bray C, Bradley R, Zwickey H. Binge Eating Disorder Is a Social Justice Issue: A Cross-Sectional Mixed-Methods Study of Binge Eating Disorder Experts' Opinions. Int J Environ Res Public Health. 2022 May 20;19(10):6243. doi: 10.3390/ijerph19106243. PMID: 35627779; PMCID: PMC9141064.



## **IV. Under-Served Eating Disorders & Their Social Justice Underpinnings**

Eating disorders (EDs) and binge ED (BED) are significant community health issues in Denver and globally, particularly among under-resourced populations (1-5). They impact mental, physical, and emotional health in individuals and communities while their environmental underpinnings are often overlooked.

BED, the most common ED, is characterized by binge episodes that involve uncontrollable overeating marked by distress, guilt, shame, and adversity/trauma (1). Epidemiological data finds up to 31% of Americans are diagnosed with BED in their lifetime. In Denver, BED is estimated to impact >3 million individuals, based on the use of food banks, community health clinics, and weight and ED centers and the known rates of economic and food insecurity, obesity, and lack of healthcare access in BED (e.g., 2,3). Individuals who use government assistance and members of the BIPOC and LGBTQ2+ communities face 2-3 times higher BED risk and prevalence rates, underscoring BED's social justice roots (3).

The impacts of BED extend beyond community health, significantly increasing risk for depression, anxiety, substance use, obesity, heart disease, and diabetes (4). These comorbidities are associated with BED but often stem from the environmental factors that underpin BED and many other physical and mental health issues (3). For example, Dr. Bray's research identifies key environmental factors that contribute to EDs and BED, including invalidating environments, marginalization, stigmatization, discrimination, economic and food insecurity, nutrition scarcity, poor food environments, adversity, and trauma (3).



Despite its prevalence, BED detection and treatment rates are low, with < 5% of individuals with BED ever receiving a formal diagnosis and up to 87% navigating their lives without treatment access (3). Dr. Bray's research uncovers a variety of treatment barriers that exist for individuals with BED and in the healthcare and social systems that serve them, as well as in the sociocultural environments EDs occur in (3,6). These barriers include guilt, shame, stigmatization, the "SWAG" misconception that ascribes EDs to "skinny white affluent girls" and leaves millions of EDs undetected, lack of provider training in ED detection and care, stigmatization, discrimination, treatment costs, time and transportation needs, and lack of scalable treatment options (3,6).

At NRFi, we use community-based research-, clinical-, and sociocultural education and outreach initiatives to provide direct support to the millions of under-served individuals who experience EDs and the health and social workers who serve them while also using social media campaigns and public speaking engagements to raise awareness about EDs and their social justice implications and change the environments EDs occur in for a better future for everyone.

#### **References:**

- APA. Diagnostic and Statistical Manual of Mental Disorders: Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Association; (2013).
- Bray B. NourishED Research Foundation ("NourishED," "NRFi") Handbook.
   2024. September 01:01. NourishED Research Foundation.



- Bray B, Bray C, Bradley R, Zwickey H. Binge Eating Disorder Is a Social Justice Issue: A Cross-Sectional Mixed-Methods Study of Binge Eating Disorder Experts' Opinions. Int J Environ Res Public Health. 2022 May 20;19(10):6243. doi: 10.3390/ijerph19106243. PMID: 35627779; PMCID: PMC9141064.
- Bray B, Bray C, Bradley R, Zwickey H. Mental health aspects of binge eating disorder: A cross-sectional mixed-methods study of binge eating disorder experts' perspectives. Front Psychiatry. 2022 Sep 15;13:953203. doi: 10.3389/fpsyt.2022.953203. PMID: 36186859; PMCID: PMC9520774.
- Bray B, Sadowski A, Bray C, Bradley R, Zwickey H. Clinical aspects of binge eating disorder: A cross-sectional mixed-methods study of binge eating disorder experts' perspectives. Front Psychiatry. 2023 Feb 14;13:1087165. doi: 10.3389/fpsyt.2022.1087165. PMID: 36864846; PMCID: PMC9971930.
- Bray, B., Shallcross, A.J., Wiss, D., Sadowski, A., Bray, K., Bray, C., & Zwickey, H. (Submitted April 2024). Treatment Barriers in Binge Eating Disorder: A Cross-Sectional Mixed-Methods Study of Binge Eating Disorder Experts' Opinions. *Frontiers in Psychiatry – Psychopathology*. Impact Factor: 5.5



## V.Fueling Families, Nourishing Youth Program Proposal

#### 1. NourishED Research Foundation Story

See "The NourishED Story" in Section V above.

The NourishED Research Foundation (NRFi) was founded to address critical gaps in mental health and nutrition support for under-resourced families (Bray; CDC; MHA, NAMI). Our mission is to empower families with the knowledge and resources they need to foster healthy, supportive environments for their children, thereby improving mental health outcomes and reducing risky behavior (substance use) for youth (ages 0 - 26). We lead the proposed work with a unique blend of expertise in holistic health, mental and public health research, and community-based interventions (Bray et al., 2021-4). Dr. Bray's research finds ~95% of those experiencing mental health illnesses never receive a formal diagnosis or treatment, lack access to healthcare, and are historically overlooked in research, clinics, and socioculturally. Individuals who use government assistance and members of the BIPOC and LGBTQ2+ communities have 2-3-fold higher risk and prevalence rates of mental health disparities than their white cis-gendered heterosexual financially secure peers (Bray et al., 2022a). NRFi aims to create a sustainable model of support for under-resourced at-risk families and yourth in Denver that can better understand, address, and improve their mental health needs and outcomes. We prioritize equalaccess research and health empowerment options for the ~95% of individuals who suffer in silence with undiagnosed physical, mental, and public health issues. Our platform aims to serve >3 million individuals in Denver with resources that are free, virtually accessible, trauma-informed, and socioculturally sensitive and responsive. Our team has successfully implemented several community-based programs,



demonstrating our capability to launch and sustain new initiatives (Bray et al., 2021-4; HECUA, HWF). We have championed fundraising for other nonprofits (e.g., HECUA; HWF) and have multiple planned revenue streams to keep NRFi and this program nourished after the original 3-year grant period.

Bray et al., 2021: https://pubmed.ncbi.nlm.nih.gov/34299752/

Bray et al., 2022a: https://pubmed.ncbi.nlm.nih.gov/35627779/

Bray et al., 2022b: https://pubmed.ncbi.nlm.nih.gov/36186859/

Bray et al., 2023: https://pubmed.ncbi.nlm.nih.gov/36864846/

CDC, 2024a: <u>https://www.cdc.gov/childrensmentalhealth/data.html</u>

CDC, 2024b: https://www.cdc.gov/nchs/fastats/access-to-health-care.htm

CDC,

2024c:

https://www.cdc.gov/nchs/pressroom/nchs\_press\_releases/2024/20240618.htm

Lang et al., 2018: https://link.springer.com/article/10.1007/s10597-018-0331-z

MHA, 2024: https://www.mhanational.org/mental-health-and-single-parent

NAMI, 2023: <u>https://www.nami.org/about-mental-illness/mental-health-by-the-</u> numbers/

NAMI, 2024a: https://www.nimh.nih.gov/health/statistics/mental-illness

U.S. DHHS, 2024: https://www.ncbi.nlm.nih.gov/books/NBK606665/



Delvecchio, E., Germani, A., Raspa, V., Lis, A., & Mazzeschi, C. (2020). Parenting styles and child's well-being: The mediating role of the perceived parental stress. *Europe's Journal of Psychology*, *16*(3), 514.

HWF, 2024: https://www.wildhawaii.org/hawai%CA%BBi-mountain-running-partner-highlight/

HECUA, 2021: https://conservancy.umn.edu/items/8ae48c30-9037-4e19-b842-4f9a6ae1c1e7

## 2. Brief Project Summary

This program provides monthly community support sessions, 1:1 ND/PhD parent/child health consults, weekly newsletters, and other accessible resources to families of youth with mental and behavioral health risks. We will improve nutrition and mental health for youth using government food resources.

## **3. Project Funding Requests**

NRFi is seeking \$250,000 annually for three years from the Caring for Denver Foundation to support the Fueling Families, Nourishing Youth Program.

## 4. Shared Global Impact

The Empowering Hope Project aims to (i) increase equity in mental health and substance misuse outcomes and (ii) improve mental health, including reducing harm to self and others.

## 5. Brief Need Statement



Our project addresses the urgent need for accessible mental and nutritional health support for families using food banks and other government funded food resources in Denver. By providing targeted resources and support, we will improve mental health, reduce substance misuse, and increase equity in health access and outcomes (SAMHSA, 2021; Bray et al., 2022a).

Bray et al., 2022a: https://pubmed.ncbi.nlm.nih.gov/35627779/

#### SAMHSA, 2021:

https://www.samhsa.gov/data/sites/default/files/reports/rpt39441/NSDUHDe tailedTabs2021/NSDUHDetailedTabs2021/NSDUHDetTabsRefs2021.htm

### 6. The Problem

See "Under-Served Eating Disorders and Their Social Justice Underpinnings" (Section VI above).

In 2023, ~33% of Denver survey respondents reported >8 days of poor mental health in the past 30 days (>25%; CPR, 2024). Yet, one in every five Denver residents who needed mental healthcare (20%) were unable to obtain it (CPR, 2024). This echoes Dr. Brays work which finds health access is a major barrier to clinical support (Bray et al., 2022-2025) As

Mental health and substance misuse are critical issues in Denver, particularly among under-resourced families. Research finds children in low-income households have higher risk for child and lifetime adversity and subsequent mental health disparity and risky/self-harm behavior, including substance



misuse (see Bray, CDC, Lang, and NAMI sources below). Parental support is a key factor in mitigating these risks and access to support resources is a primary barrier to physical and mental health equity (see all sources below). For example, in 2023, ~33% of Denver survey respondents reported >8 days of poor mental health in the past 30 days (>25%; CPR, 2024). Yet, one in every five Denver residents who needed mental healthcare (20%) were unable to obtain it. This echoes Dr. Brays work which finds health access is a major barrier to clinical support.

Thus, our project will provide essential resources and support to underresourced families, helping to create stable and supportive environments for at-risk youth. By addressing the root causes of mental health issues and substance misuse (family, parental, and environmental support and resource access), we aim to create lasting change in Denver metro communities. We will use a three-pronged approach to address mental health disparity at three levels: (1) the youth and families who experience it, (2) the social and health care workers who serve them, and (3) the communities, environments, and systems these issues occur in, as described further below.

Bray et al., 2022a: https://pubmed.ncbi.nlm.nih.gov/35627779/

Bray et al., 2022b: https://pubmed.ncbi.nlm.nih.gov/36186859/

Bray et al., 2023: https://pubmed.ncbi.nlm.nih.gov/36864846/

Bray et al., 2025 (in prep). Treatment Access Barriers in Binge Eating Disorder.

CDC, 2024a: https://www.cdc.gov/childrensmentalhealth/data.html



NOURISHING KNOWLEDGE, EMPOWERING HÓPE

CDC, 2024b: https://www.cdc.gov/nchs/fastats/access-to-health-care.htm CDC, 2024c: https://www.cdc.gov/nchs/pressroom/nchs\_press\_releases/2024/20240618.htm CDC, 2023a: https://www.cdc.gov/nchs/products/databriefs/db465.htm CDC, 2023b: https://www.cdc.gov/mmwr/volumes/72/wr/mm7226a2.htm CPR, 2024: https://www.cpr.org/2024/12/02/cash-for-caring-denver-mental-health-investigativeseries/ Lang et al., 2018: https://link.springer.com/article/10.1007/s10597-018-0331-z MHA, 2024: https://www.mhanational.org/mental-health-and-single-parent NAMI, 2023: https://www.nami.org/about-mental-illness/mental-health-by-the-numbers/ NAMI, 2024a: https://www.nimh.nih.gov/health/statistics/mental-illness

U.S. DHHS, 2024: https://www.ncbi.nlm.nih.gov/books/NBK606665/

## 7. Project Overview

The "Fueling Families, Nourishing Youth" Program uses a three-pronged approach to address mental health disparity by providing support and nourishing change at three critical levels: (1) in the youth and families who experience these issues, (2) among social and health care workers who serve them, and (3+) in the communities, environments, and systems these issues occur in, thus shaping the environment for better future health access, equity, and outcomes for everyone.

Thus, our project will provide essential resources and support to underresourced families, helping to create stable and supportive environments for at-risk youth. By addressing the root causes of mental health issues and substance misuse (family, parental, and environmental support and resource



access), we aim to create lasting change in Denver metro communities. We will use a three-pronged approach to address mental health disparity at three levels: (1) the youth and families who experience it, (2) the social and health care workers who serve them, and (3) the communities, environments, and systems these issues occur in, as described further below.

In yr 1, we will provide monthly community support sessions, 1:1 ND/PhD parent/child health consults, and weekly newsletters to families of youth using government food resources with mental and behavioral health risks. We will use patient-driven needs-based research to collect, understand, and improve the mental health outcomes and needs of program users.

In years 2-3, we will use this research to create affordable and accessible nutrition and mental health resources for at-risk families and youth (in addition to year 1 resources). These will include paper and electronic books, workbooks, courses, and apps that focus on supporting nutrition, mental, and emotional health and fitness in low-resource environments. These resources will be distributed free throughout the Denver metro area. We will also create accredited training courses and workshops for social and healthcare workers that will be offered in-person (in Denver) and online. Research findings will also be used to raise awareness about the links between low-resource environments and mental health risk in families and youth. This will be done through targeted publications in peer-reviewed journals, conference presentations, and social media campaigns that aim to change the environments these issues occur in.



To focus our efforts on improving mental health outcomes in under-resourced (at-risk) families and youth, we will form strategic partnerships with state and government resource programs (e.g., Food Bank of the Rockies, FISH of East Denver, Campbell Chapel AME Church Food Pantry, Denver Rescue Mission, Salvation Army Crossroads Shelter, Colorado PEAK, and Colorado WIC). Our community support sessions (held in these locations) will focus on pragmatic topics like navigating family food and nutrition on government assistance and low budgets. We will also offer tools that can help navigate equally tricky emotional landscapes and home environments (e.g., deep breathing, meditation, yoga, warm lines, community support networking).

Our research arm will collect anonymous data from program users about their health outcomes and needs. Program engagement and mental health outcomes will be used to measure program success in year 1 and – with other findings – inform development and dispersion of more tailored health resources that are accessible, affordable/free, relevant, and responsive to the needs of this marginalized population. Resource engagement and response will be used to assess program success in years 2-3. Research findings will also inform social work and health care provider education trainings and accreditations in years 2-3, with engagement and responses used to assess program success. The clinical trainings can both improve mental health screening, diagnosis, and support AND provide NRFi with a strong avenue for self-sufficient funding.



Overall, this comprehensive approach will address mental health and substance misuse in Denver by providing accessible support and resources to families in need and providers who care for them while also changing the environments these issues occur in. Our four-pronged approach will (1) develop, test, distribute, and improve affordable and accessible resources to parents and families who are at high risk for mental health struggles and other harm risk behavior in youth, based on socio demographic criteria. (2) Develop, test, distribute, and improve free physical and mental health trainings to healthcare providers, social workers, and other social systems in the Denver Metro area to improve detection, screening, and support. (3) Use targeted media campaigns and public speaking engagements to raise awareness about the ways sociodemographic status and social justice issues impact physical and mental health with a goal to change the environments these issues occur in. (4) Through these initiatives, we aim to create a better future for mental health, for youth, for everyone.

#### Aims:

1: Direct Support for Families and Youth with Under-Served Mental Health Vulnerability

2: Research on Under-Served Populations having Food Stability Concerns

3: Accredited Healthcare Training and Support for support of Under Served Populations, Youth, and Families

4: Campaigns to Improve the Environments of Food Access, and Education for Youth and Families



#### **References:**

Bray et al., 2022: https://pubmed.ncbi.nlm.nih.gov/35627779/ Bray et al., 2022: https://pubmed.ncbi.nlm.nih.gov/36186859/ Bray et al., 2023: https://pubmed.ncbi.nlm.nih.gov/36864846/

#### 8. Intended Changes

This program will improve mental health outcomes for Denver metro families of youth with mental health-, nutrition, access, and financial disparities. We will improve nutrition and mental health support, access, education, and selfefficacy, AND awareness, understanding, and attitudes about these issues among health and social workers in at-risk communities. NRFi resources will also enable social and health care workers to better detect, screen, and support families of at-risk youth, thus minimizing vulnerability and preventing or delaying mental and behavioral health onset.

In yr 1, we will provide parents, families, and youth with direct resources that support nutrition, parenting, community engagement, and overall mental and holistic health. Research will enable a better understanding, voice, and response to the needs identified by program users. In yrs 2-3, free online resources will be distributed to Denver metro food banks, community health centers, and other risk resource locations, improving health equity and supporting families and youth, regardless of health insurance, transportation, financial or food security, cognitive capabilities, or healthcare experiences and attitudes. If even 10% of these resources are used, we can directly impact the lives of 300,000 under-served families in Denver. These resources will

pairDr.Bray'sresearch(https://pubmed.ncbi.nlm.nih.gov/?term=brenna+bray&size=200)withAngela Nauss, LMFTs trauma-informed clinical approaches to providepragmatic solutions for real life situations that often prompt mental healthissues (e.g., economic precarity, food insecurity, nutrition scarcity).

Ongoing research will continue to increase awareness of the lived experiences of these individuals. Findings will inform clinical trainings (accredited inperson and online courses) offered in years 2-3 to address under-recognized issues in mental health care (stigma, misconceptions about who can have a mental health illness, under-screening and diagnosis, lack of clinical training) as well as a variety of barriers that often impede clinical care (e.g., healthcare avoidance due to healthcare stigmatization, discrimination, and inequity as well as treatment costs, time, travel commitments, and scalable treatment options). Trainings will be offered free to Denver foodbanks, emergency shelters, community health centers, etc. to support detection, management, and care of underserved individuals with sociodemographic risk for mental health disparity (e.g., economic precarity, food scarcity, low parental support). Our social media campaigns currently reach >30,000 individuals on a budget of <\$200. We will use this grant to bolster our social media campaigns and target the Denver Metro area and communities to impact the environment that BED and BE occur in, creating a better future for everyone.



Bray B. NourishED Research Foundation ("NourishED," "NRFi") Handbook. 2024. September 01:01. NourishED Research Foundation.

#### 9. Measuring Progress: Outcome Assessment Measures

To evaluate our program's progress and impact, we will assess participation, engagement, and user experience outcomes related to the primary activities of this project.

In year one, the following outcomes will be used to measure program progress and success:

(1) Strategic partnership alliance with state and government resource programs in the Denver metro area (e.g., Food Bank of the Rockies, FISH of East Denver, Campbell Chapel AME Church Food Pantry, Denver Rescue Mission, Salvation Army Crossroads Shelter, Colorado PEAK, and Colorado WIC). (Documentation will provide evidence for these aims).

(2) Program Implementation, including established methods for enrollment and engagement, community support meeting agendas that include strategic meeting locations, and a ListServe for weekly newsletter output. (Documentation will provide evidence for these aims).

(3) Program engagement. This will be confirmed through program user attestations and number of program users who (a) attend monthly group support meetings, (b) use 1:1 parent/child health consults; (c) attest their engagement with the weekly newsletter; (d) voluntarily enroll in the research



study to collect information on program participants, their mental health outcomes, and needs.

(4) Establishing baseline mental health outcomes. These will be assessed through validated psychometric survey scores that are self-reported by users for themselves and their children (in case of parents/minors). Surveys will be administered through the research electronic database capture system, a secure and validated electronic research data collection server. Mood, depression, anxiety, adverse childhood experiences, adverse lifetime experiences, emotion regulation, risky behavior, healthy behavior, perceived support, self-efficacy, and overall quality of life will be assessed. Program success in year one will focus on collecting baseline outcomes. Program success in years 2-3 will focus on improving these outcomes.

In years 2-3, the following outcomes will be used to measure program progress and success:

(1) Maintenance (and growth) of partnerships and programs established in Yr 1. (Assessed through partner- and program user attestations, with increasing numbers in program users and use, especially regarding sub-aims a-d identified in #3 above).

(2) Development of Patient-Driven Mental Health Resources that responds to program user's needs, as identified through program experience and data collection (research). Resource final products will provide evidence of this aim.



(3) Strategic plan for resource distribution, assessed through documentation.

(4) Resource Distribution and engagement. Assessed through (a) attestation from partners who receive and distribute resources, (b) numbers of distributed and used resources and resource access codes and log-ins, (c) user responses.

(5) Improvement in mental health outcomes of program users, as collected through research and compared to those collected in year 1 at baseline.

(6) Development of Accredited Training Resources for social and health care workers that focus on increasing awareness around the relationship between low-resource environments and mental health risk while also providing intervention options to support low-risk families and youth based on the needs they identify in NRFi research. Course offerings (final product) will provide evidence of this aim.

(7) Strategic plan for course training distribution, assessed through documentation.

(8) Course training engagement. Assessed through attestation from trainees and users, including (a) number of courses offered and/or purchased in the Denver metro area and online, (b) number of users and attendees, and (c) user response ratings.

(9) Number of individuals reached and who engage with targeted media campaigns, including (a) social media followers and engagers and (b) public speaking engagement. Facebook Meta's Business Suite analytics will be used to identify social media "following" and engagement. Number of public speaking engagements held and number of participants at public speaking



engagements will be used to assess that portion of outreach. We will aim to publish at least one scientific publication and present findings at at least one conference also.

### **10. Timeline and Milestone**

#### <u>Year 1</u>

Q1: (1) Establish strategic partnership alliances with state and government resource programs in the Denver metro area (e.g., Food Bank of the Rockies, FISH of East Denver, Campbell Chapel AME Church Food Pantry, Denver Rescue Mission, Salvation Army Crossroads Shelter, Colorado PEAK, and Colorado WIC). (2) Develop and finalize schedules, locations, ListServs, and all implementation and enrollment methods and needs for program launch. (3) Submit research proposal for IRB approval and establish all research methods for safe and secure data capture.

Q1-2: Launch awareness campaigns (if not already launched in Q1), including monthly community support meetings, 1:1 parent/health consults, and weekly newsletter engagement. Focusing on recruiting, enrolling, and retaining users. Begin touching bases with youth and families through program intake and collecting mental health outcomes through research avenues.

Q2-3: (1) Develop and distribute the youth and family "budget eating" workbook and additional preliminary resources. (2) Establish strategic partnerships with



social and health care facilities for social and health care courses and trainings. (3) Begin data collection for research studies on "crisis" eating interventions and peer-led support. (4) Focus on analyzing preliminary baseline mental health outcomes and needs.

Q4: (1) Analyze initial data and adjust programs as needed to best serve Denver youth and families. (2) Maintain ongoing programs and partnerships, focusing on user responsiveness and increasing program enrollment, engagement, and retention.

#### Year 2

Q1-Q4: (1) Continue year 1 program activities. (2) Develop and distribute responsive nutrition and mental health resources for program users. (3) Collect data on resource uptake, use, and responses. (4) Develop and distribute provider training course and submitted for accreditation. (5) Begin offering provider training course. (6) Collect data on course uptake, use, and responses. (7) Publish preliminary research findings and present at conferences (Q2-4). (8) Use program experience and research findings to strengthen environmental media campaigns (e.g., increase social media following and engagement through multi-weekly postings and responses. (9) Dr. Bray and Dr. Barnett to host 2-4 public speaking engagements with attendance and responses collected through validated research methods. (10) Launch and expand peer-led support groups and virtual interventions.



#### <u>Year 3:</u>

Q1-Q4: Continue all activities and finalize data collection.

Q2: Publish final research findings and develop recommendations for future programs.

Q3: Evaluate overall program impact and sustainability.

## 11. Anticipated Number Served

Projected number of unduplicated Denver residents to be served: up to 3 million. Realistically: 1,500 – 500,000 See <u>Appendix I ("NRFi Caring for</u> <u>Denver Target Locations & Impact Projections"</u>) for justification of impact projections.

#### 12. Justification for Estimated Number Served

We aim to reach >500,000 unduplicated Denver residents. See Appendix I ("NRFi Caring for Denver Target Locations & Impact Projections"). In yrs 2-3, free online resource access codes will be distributed to 152 food banks, community health centers, and other resource locations in Denver Metro. If even 10% of these access codes are used, we can directly impact 300,000 Denverites. Our social media campaigns currently reach >30,000 individuals on a budget of <\$200. Increasing social media campaign funding can further increase community engagement, service, and change.

See <u>Appendix I ("NRFi Caring for Denver Target Locations & Impact</u> <u>Projections"</u>) for justification of impact projections.



## **13. Population Served**

Our proposal will serve youth and families with sociodemographic risk for mental health disparities and harmful/risk behaviors in youth among Denver metro area. This will include families with economic hardships, government assistance use, and food access concerns, particularly those from marginalized and under-resourced communities (Bray et al., 2022a,b; 2023; 2025). Our organization reflects the culture of the community we serve through our diverse Advisory Board and staff, who bring a wide range of cultural and lived perspectives and experiences. We ensure our services are relevant to the community's needs by prioritizing patient narratives and patient-driven data in our research and outreach efforts (Bray et al., 2021-2025). We also engage with current community leaders and stakeholders to continuously adapt our programs to better serve the population.

Bray B. NourishED Research Foundation ("NourishED," "NRFi") Handbook. 2024. September 01:01. NourishED Research Foundation.

Bray et al., 2021: https://pubmed.ncbi.nlm.nih.gov/34299752/

Bray et al., 2022a: https://pubmed.ncbi.nlm.nih.gov/35627779/

Bray et al., 2022b: https://pubmed.ncbi.nlm.nih.gov/36186859/

Bray et al., 2023: https://pubmed.ncbi.nlm.nih.gov/36864846/

Bray et al., 2025 (in prep): Treatment Access Barriers in Binge Eating Disorder.



## 14. Are partnerships needed for the proposed work?

Partnerships with state and government resource programs in the Denver metro area are planned and underway (e.g., Food Bank of the Rockies, FISH of East Denver, Campbell Chapel AME Church Food Pantry, Denver Rescue Mission, Salvation Army Crossroads Shelter, Colorado PEAK, and Colorado WIC). Partnerships and alliances with social service and community health care systems are also planned and underway to disseminate the accredited training courses developed in through this grant funding.

#### **15.** Potential Challenges

We anticipate potential challenges in reaching and engaging marginalized populations who may be hesitant to seek help due to stigma or lack of awareness (e.g., Bray et al., 2022, 2025). Additionally, securing sustained funding and resources to support our programs may be challenging. We will address these challenges by building strong community partnerships, leveraging diverse funding streams, and continuously evaluating and adapting our strategies.

Bray et al., 2022a: https://pubmed.ncbi.nlm.nih.gov/35627779/

Bray et al., 2025 (in prep): Treatment Access Barriers in Binge Eating Disorder.



## 16. Additional Resources on the Fueling Famlies, Nourishing Youth Program & NourishED.

There are a few resources that can be helpful in gaining a quick understanding of Nourished. Here are a few:

- **A.** NourishED Flyer (see <u>Appendix G</u>).
- B. Basic Info on NourishED & Under-Served Eating Disorders (See section IV, "NourishED At a Glace").
- C. NRFi Founder Dr. Brenna Bray (PhD)'s 2022 publication "Binge Eating Disorder is a Social Justice Issue" (Bray et al) highlights



the social justice issues that underpin many eating disorders (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9141064/).

- **D.** Warning: this is heady. You may want to read just the abstract, headers/sub-headers, and a few quotes (in italics) about themes that interest you).
- E. Example of a social media campaign (available on YouTube: https://youtube.com/shorts/p9MAtdtIEKQ?si=aT9nfTyyx4I\_U uSZ)
- F. NRFi social media account links (Facebook, Instagram, LinkedIn, Twitter, YouTube): https://linktr.ee/nourishedrfi.
- G. NRFi Newsletter Subscription: https://gem.godaddy.com/signups/fccb64f617a24436b949300315
  b2619c/join
- H. Want more? Drop us a line; we're here to serve!nourished@nourishedrfi.org.

# 17. What else would you like us to know that was not addressed in the other questions?

At NRFi, we are committed to creating a more inclusive and supportive environment for individuals with eating disorders. Our communitycentered approach and dedication to addressing the root causes of eating disorders make us the ideal organization to lead this important work. We are grateful for the opportunity to partner with Caring for Denver to make a meaningful impact in our community.



## VI. Fundraising Priorities (\$500K - \$1.4 million per year)

Currently all NRFi research team members (and all NRFi members in general) volunteer their time and efforts to NRFi without compensation. NRFi is seeking to raise a total of \$500,000 - \$1.5 million per year (on average) for a total of \$1.5 - \$4.4 million raised to support our first three years of impact, development, growth, and success, as shown in Table 1 on page 50 below (Section IX.5) and described further in sections IX.1–4 below.

#### 1. Research Support (\$445,000 per year; \$1,255,346 for three years)

NRFi is actively seeking funding support for research operation and dissemination. This small-scale//initial seed funding will be used to support the following operations:

#### A. Research Staff (\$234,600 per year; \$703,800 for 3 years)

NRFi would like to raise between \$170-\$300,000 to provided up to three years of protected funding for Dr. Bray (\$125,000 per year + \$25,000 in fringe benefits; \$150,000 total; \$450,000 for three years) and up to two dedicated research assistants (\$60,000 per year + \$12,500 in fringe benefits per year) and research interns (\$10,000 per contract + \$2,100 in fringe benefits per year) who can provide dedicated time to supporting NRFi research implementation processes and needs.

# B. Grant Proposal Development and Submission (\$145,000 per year; \$360,000 for three years)

NRFi would like to raise \$150,000 to provide up to one year of protected funding for up to three dedicated grant specialists who can assist in



development and submission of NRFi's grant proposal plans (including R15, R03, and R25 proposals to the National Institute of Mental Health (NIMH), National Centers for Complementary and Integrative Health (NCCIH), and National Institute on Minority Health and Health Disparities (NIMHD); see Section VIII.2 of the NRFi Handbook for additional details).

#### C. Publication Fees (\$30,000 per year; \$90,000 for three years)

NRFi currently has four manuscripts either ready for submission or accepted for publication, with one more planned for submission in Nov 2024. Publication fees in high-impact, peer-reviewed, PubMed-indexed, openaccess journals typically range from \$3,000 to \$5,000 per manuscript. Therefore, we are seeking to raise \$20,000 to support our immediate publication fee needs. We are requesting \$30,000 per year total to support publication fees (the immediate need for \$20,000 will be included in this \$30,000 annual request).

#### i. Publication Fees

Publication fees are expensive and for someone who does not work in academia, these fees can be shocking. Here are what these fees cover and why they cannot be sacrificed.

#### a. High-Impact Journals

At NRFi, we prioritize publishing our research in high-impact, peer-reviewed, open-access, PubMed-indexed scientific journals. High-impact journals ensure that our research findings



reach the maximum number of people, both clinically and academically, thus having the highest possible impact.

#### **b.** Rigorous Peer-Review

High-impact journals have rigorous peer-review processes, where two to three scientific field experts review each manuscript, suggest revisions, and contribute to the publication decision. This ensures high scientific rigor.

#### c. Open-Access Journals

We prioritize publication in open-access journals to ensure that our research findings are accessible to anyone, free of charge. This aligns with our mission of promoting justice, equity, diversity, inclusion, access, and validation.

#### d. PubMed Indexing

Journals that index their articles in PubMed typically have higher publication fees. We accept these additional fees to ensure our research findings are accessible to the greatest audience.

#### D. Indirect Fees (\$32,000 per year; \$96,000 for three years)

NRFi currently maintains a formal affiliation with the National University of Natural Medicine's Helfgott Research Institute. This affiliation and partnership provides NRFi staff members with the ability to access and uses Helfgott's research resources, including their subscription to CITI Program Trainings for Responsible Research Ethics Compliance Trainings, PubMed,



Institutional Review Board (IRB), Research Electronic Database Capture System (REDCap, used for secure research survey administration, data collection, storage, and analysis with end-to-end encryption, Dedoose software for qualitative and meta-analyses. NRFi would like to raise a total of \$15,000 USD to compensate NUNM/Helfgott for use of these services. Standard indirect fees associated with these services can range from \$30-50k.

#### 2. Administrative Support (\$197,000 per year; \$591,000 for 3 years)

NRFi is actively seeking funding support for strategic business development and administrations. This small-scale//initial seed funding will be used to support the following operations:

#### A. Administrative Staff (\$150,000 per year; \$435,000 for three years)

NRFi would like to raise \$150,000 per year (\$435,000 for three years) to provide up to three years of protected funding for an executive administration position and up to two additional support staff or contracts (\$120,000 per year for base salary + \$25,000 in fringe benefits per year).

# B. Administrative and Business Resources (\$20,000 per year; \$60,000 for three years)

Costs for IRS filing, and compliance have currently been covered out-ofpocket by NRFi Founder, Director, and CEO (along with all costs associated with NRFi operations, including marketing, promoting, education and outreach, and research). NRFi would like to raise \$20,000 USD that can support business administration tools, IRS filing fees and support, fees for any needed legal counsel, and business insurance fees.



# C. Indirect Fees for Fiscal Sponsorship (\$32,000 per year; \$96,000 for three years)

NRFi currently maintains a formal affiliation with the National University of Natural Medicine's Helfgott Research Institute, as described in sections XIII and XV.1.D above. Additionally, NRFi has an executed fiscal sponsorship agreement with NUNM's Helfgott Research Institute in which Helfgott has agreed to serve as a fiscal sponsor to NRFi. The indirect fees associated with this provision are typically 37% of grant funding; however, many grants (such as Caring for Denver) only allow up to 15% indirect fees to be covered by grant funding. Thus, NRFi is seeking to raise reserve funds to cover gaps in indirect fees for fiscal sponsorship and other fiscal support provided by Helfgott to NUNM.

#### 3. Fundraising Support (\$171,500 per year; \$514,500 for 3 years)

NRFi is actively seeking funding support for strategic planning, development, implementation, and maintenance of fundraising campaigns and private donor relations. This small-scale//initial seed funding will be used to support the following operations:

#### A. Fundraising Staff (\$150,000 per year; \$435,000 for three years)

NRFi would like to raise \$150,000 per year (\$435,000 for three years) to provide up to three years of protected funding for an executive Director of Fundraising and Donor Relations position and up to two additional support staff or contracts (\$120,000 per year for base salaries total + \$25,000 in fringe benefits per year total). This role (or roles) will support strategic planning,



development, implementation, and maintenance of NRFi fundraising campaigns and major donor relationships.

#### B. Fundraising Gala (\$20,000 per year; \$60,000 for three years)

NRFi would like to host an annual fundraising event in Denver, CO to establish and maintain private donor relationships that can contribute to core NRFi support. The event will include (i) music provided by local singer/songwriters Rob Drabkin and The Lumineers, (ii) an educational presentation by Dr. Brenna Bray on binge eating prevalence rates and NRFi's mission, motto, aims, and (iii) success initiatives, and a discussion held by professional photographer and athlete Cory Richards (Vice President of the Board of Directors at NourishED). The event aims to raise between \$100-500,000 USD for NourishED. To achieve this, we plan to allocate \$20,000 USD to this event, which includes venue rental, catering, entertainment fees, marketing, decorations, staffing, audio-visual equipment, permits and insurance, and miscellaneous fees. Tickets will be sold for between \$500-1,000 USD to between 200 to 500 attendees in order to meet our revenue goals of \$100,000-\$500,000 USD (for net revenue of between \$60,000-\$340,000). See Appendix G for Flyer Content.

# C. Fundraising Resources & Reserves (\$6,500 per year; \$19,500 for three years)

NRFi would like to generate up to \$20,000 to provide secure funding for up to three years of access to fundraising tools and reserves, including Canva, LinkedIn Business Account, and Meta Business Suite (for Facebook and



Instagram). Costs are projected to be \$5,000 per year (\$15,000 for three years with an additional \$5,000 projected for reserves).

# 4. Education & Outreach Support (Yr. 1: \$245,000 - \$425,000; Yr. 2: \$411,000 - \$443,00; Yr. 3: \$236,00 - \$415,000; \$725,00 - \$1,262,00 for three years)

NRFi is actively seeking funding support for strategic planning, development, implementation, and maintenance of our education and outreach activities. This small-scale//initial seed funding will be used to support the following operations:

# A. Education & Outreach Staff (\$150,000 per year; \$435,000 for three years)

NRFi would like to raise \$150,000 per year (\$435,000 for three years) to provide up to three years of protected funding for an executive Director of Education and Outreach position and up to two additional support staff or contracts (\$120,000 per year for base salaries total + \$25,000 in fringe benefits per year total). This role (or roles) will support strategic planning, development, implementation, and maintenance of NRFi Education & Outreach Activities, including the NRFi Binge Eating Textbook, Workbook, Video Modules and Podcast, Accreditation Courses, Public Speaking events, engagements, and Social Media campaigns as outlined in section IX below (pg. 56).

# B. Education & Outreach Activities (\$130,500 - \$270,500 for first year; \$201,500 - \$421,500 for all three years)



NRFi would like to raise between \$130,500 - \$270,500 to support our first year of education and outreach activities and between \$201,500 - \$421,500 total to support all three years of Education & Outreach Activities. Our Education and Outreach Activities are described in <u>Section XI</u> on page 56 below and cost projections are outlined below.

- i. Binge Eating Textbook, Workbook, & Companion Video Modules (\$30,000 per year; \$90,000 for 3 years)
  - a. Overview: NRFi is actively seeking funding support for the development, production, and distribution of its Binge Eating Textbook and Workbook. These actives are outlined in <u>section XI.1</u> on page 56 below.
  - a. First-Year Cost Projections (\$30,000): Cost projections are \$30,000 in the first year, with a projection of \$5,000 per activity (e.g., \$5,000 USD for the textbook, \$5,000 for the workbook, \$5,000 for the companion video modules, \$5,000 for an online platform associated with these products, \$5,000 for marketing and sales, and \$5,000 for reserves). These costs include development and authorship, formatting and design support, editorial services, publication fees (e.g., for ISBN purchase, copyright fees, etc.), and production, marketing, distribution, and sales of physical and electronic products. These costs are based on Dr. Bray's experience in planning, developing, authoring, publishing, and distributing and marketing an online medical scribe training platform (ScribeAccelerator), which



included a medical scribe textbook, companion workbook, website, and video training modules.

b. Second- and Third Year Cost Projections (\$30,000 per year): Cost projections remain \$30,000 per year in the second and third year. These costs will focus on three key areas: (i) technology development (e.g., development of an app that can house all resources); (ii) marketing, advertisement, sales, user adoption; and (iii) any overhead research needs.

# ii. CME/CEU Trainings for Healthcare Providers (\$135,000 in first, year; \$165,000 for three years)

NRFi is actively seeking funding support for the development, production, and distribution/dissemination of a series of CME/CEU accredited course offerings for healthcare professionals. These will begin with two course offerings that address (i) clinical excellence in eating disorder care and (ii) Justice, Equity, Diversity, Inclusion, Stigmatization, Access, Marginalization, and InValidation (JEDI-SAM-IV//JEDI-VAMOS//JEDI-MOVES). These activities are outlined in <u>section XI.2 below</u> on page 70. Total cost projections are described in <u>section XI.2 below</u>. Total costs for the development, production, accreditation, hosting, and distribution of two courses are projected to cost \$35,000 – \$135,000 in the first year and **\$65,000 – \$165,000 for three years.** Courses will be sold for \$1,000 per course. **The course costs are projected to be absolved in the first 165 course sales.** 

iii. NRFi Podcast (\$500 per year; \$1,500 for 3 years)



NRFi is developing and producing a podcast, as outlined in <u>section</u> <u>XI.3</u> below (pg. 80). The first season of the podcast will provide a companion resource to the binge eating textbook and workbook. Subsequent seasons will address components of Dr. Bray's publications and serve to make that information translatable to a general audience. This small-scale//initial seed funding will be used to support the following operations. Costs are projected to be low (\$1,000 per year; \$3,000 for three years to cover podcast services and basic marketing and advertising fees).

# iv. Conference Presentations to Educate Healthcare Providers (\$20,000 - \$60,000 for one year; \$60,000 - \$180,000 for 3 years)

Dr. Bray is a renowned international researcher and speaker. She will present at healthcare conferences locally and globally and mentor up to five research assistants in preparing and submitting research abstracts and presenting research and local, national, and international conferences, as described in <u>section XI.5</u> on pg. 103 below. These activities will have high impact on education and outreach initiatives for NRFi and NRFi's mission, motto, and aims. Costs associated with these activities are also described in <u>section XI.5</u> on pg. 103 below and are projected to range from \$20,000 - \$60,000 for one year; \$60,000 - \$180,000 for three years.

v. Public Speaking Engagements (\$15,000 annually; \$45,000 for three years)



Dr. Bray is a world-renowned researcher and public speaker. She will engage in a variety public speaking events locally, nationally, and internationally to raise awareness of NRFi. She will also provide mentorship to up to five NRFi staff members to support local community-based speaking engagements initiated by NRFi regional leaders. Costs associated with these engagements are projected to be \$15,000 per year and \$45,000 for three years. These costs will cover up to 5 speaking engagements per year, including fees associated with space rental, light refreshments, travel, lodging, and associated insurance, and a small budget reserve).



## **5.** Line-Item Budget for First Three Fiscal Years (April 2024-2027)

Division	1st Yr. Total	1st Yr. C4D	2nd Yr. Total	2nd Yr. C4D	3rd Yr. Total	3rd Yr. C4D	3-Yr. Total	3-Yr C4D
NRFi Total (without Indirect Fees)	\$1,170,203	\$ 818,043	\$1,171,203	\$ 895,708	\$1,088,705	\$ 813,210	\$3,430,110	\$2,526,960
NRFi Total	\$1,391,826	\$ 413,428	\$1,544,343	\$ 502,592	\$1,403,730	\$ 492,592	\$4,339,899	\$1,408,611
Research (Minus indirect fees)	\$ 410,615	\$ 410,615	\$ 562,131	\$ 410,616	\$ 462,881	\$ 338,118	\$1,435,627	\$1,159,348
Research Staff	\$ 235,619	\$ 235,619	\$ 235,619	\$ 235,619	\$ 235,619	\$ 235,619	\$ 706,856	\$ 706,856
Dr. Bray salary (Lead Investigator, Director)	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 375,000	\$ 375,000
Dr. Bray fringe benefits	\$ 26,038	\$ 26,038	\$ 26,038	\$ 26,038	\$ 26,038	\$ 26,038	\$ 78,113	\$ 78,113
Research Investigator Salaries	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 180,000	\$ 180,000
Research Investigator Fringe Benefits	\$ 12,498	\$ 12,498	\$ 12,498	\$ 12,498	\$ 12,498	\$ 12,498	\$ 37,494	\$ 37,494
Research Intern Contracts	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 30,000	\$ 30,000
Research Intern Contract Fringe Benefits	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 2,083	\$ 6,249	\$ 6,249
Grant Proposal Development and Submission	\$ 144,996	\$ 144,996	\$ 144,996	\$ 144,996	\$ 72,498	\$ 72,498	\$ 362,490	\$ 362,490
Grant Specialist Salaries	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 60,000	\$ 60,000	\$ 300,000	\$ 300,000
Research Investigator Fringe Benefits	\$ 24,996	\$ 24,996	\$ 24,996	\$ 24,996	\$ 12,498	\$ 12,498	\$ 62,490	\$ 62,490
Publication Fees	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,001	\$ 30,000	\$ 30,001	\$ 90,000	\$ 90,002
NOTE: INDIRECT FEES	ARE WAVED,	UNLESS GRAI	NT FUINDING	IS AWARDED	: WILL BE INC	LUDED IN GR	ANT FUNDING	G)
Indirect Fees	\$ 151,517	\$-	\$ 151,517	\$-	\$ 124,765	\$-	\$ 427,798	\$-
Federal Grant Research Requests	\$ 562,131	\$ -	\$ 713,648	\$-	\$ 587,646	\$ -	\$1,863,426	\$ -
Administration (Minus Indirect Fees)	\$ 164,996	\$ 40,000	\$ 164,996	\$ 116,664	\$ 164,996	\$ 116,664	\$ 494,988	\$ 273,328
Administrative Staff Salary + Fringe Benefits	\$ 144,996	\$ 20,000	\$ 144,996	\$ 96,664	\$ 144,996	\$ 96,664	\$ 434,988	\$ 213,328
Administrative Staff Salary	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 360,000	\$ 240,000
Administrative Staff Fringe Benefits	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 74,988	\$ 49,992



Division	1st Yr. Total	1st Yr. C4D	2nd Yr. Total	2nd Yr. C4D	3rd Yr. Total	3rd Yr. C4D	3-Yr. Total	3-Yr C4D
Administrative and Business Resources	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 60,000	\$ 60,000
NOTE: INDIRECT FEES ARE WAVED, UNLESS GRANT FUINDING IS AWARDED: WILL BE INCLUDED IN GRANT FUNDING)								
Indirect Fees	\$ 70,107	\$ 6,000	\$ 70,107	\$ 17,500	\$ 65,495	\$ 17,500	\$ 205,709	\$ 40,999
Administration Requests - Including Indirect Fees	\$ 235,103	\$ 46,000	\$ 235,103	\$ 134,164	\$ 230,491	\$ 134,164	\$ 700,697	\$ 314,327
Fundraising	\$ 171,496	\$ 123,164	\$ 171,496	\$ 123,164	\$ 171,496	\$ 123,164	\$ 514,488	\$ 369,492
Fundraising Staff Salary + Fringe Benefits	\$ 144,996	\$ 96,664	\$ 144,996	\$ 96,664	\$ 144,996	\$ 96,664	\$ 434,988	\$ 309,492 \$ 289,992
Fundraising Staff Salary	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 360,000	\$ 240,000
Fundraising Staff Fringe Benefits	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 74,988	\$ 49,992
Fundraising Events	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 60,000	\$ 60,000
Fundraising Resources	\$ 6,500	\$ 6,500	\$ 6,500	\$ 6,500	\$ 6,500	\$ 6,500	\$ 19,500	\$ 19,500
Education & Outreach	\$ 423,096	\$ 244,264	\$ 424,096	\$ 245,264	\$ 414,096	\$ 235,264	\$1,261,288	\$ 724,792
Education & Outreach Staff Salary + Fringe Benefits	\$ 144,996	\$ 96,664	\$ 144,996	\$ 96,664	\$ 144,996	\$ 96,664	\$ 434,988	\$ 289,992
Education & Outreach Staff Salary	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 120,000	\$ 80,000	\$ 360,000	\$ 240,000
Education & Outreach Staff Fringe Benefits	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 24,996	\$ 16,664	\$ 74,988	\$ 49,992
Binge Eating Platform (Textbook/e- Textbook, Workbook/e-Workbook, Video Modules, Online Resources & Platform)	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 90,000	\$ 90,000
Year 1: Minimum Viable Product Development (Textbook, e-Textbook, Workbook, e-Workbook, Online Resource Platform) Development, Copyright and Publication Fees, Marketing, Sales, & Distribution Fees	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ 30,000



Division	1st Yr. Total	1st Yr. C4D	2nd Yr. Total	2nd Yr. C4D	3rd Yr. Total	3rd Yr. C4D	3-Yr. Total	3-Yr C4D
Years 2-3: Technology Development & User Adoption	\$ -	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 60,000	\$ 60,000
CME/CEU Trainings for Healthcare Providers (\$65,000 – \$165,000)	\$ 112,100	\$ 62,100	\$ 113,100	\$ 63,100	\$ 103,100	\$ 53,100	\$ 328,300	\$ 178,300
Accreditation Fees	\$ 21,600	\$ 21,600	\$ 12,600	\$ 12,600	\$ 12,600	\$ 12,600	\$ 46,800	\$ 46,800
Content Creation (Research, Writing, Peer Review)	\$ 40,000	\$ 30,000	\$ 40,000	\$ 30,000	\$ 40,000	\$ 30,000	\$ 120,000	\$ 90,000
Production Fees (Video Production, Editing, Hosting)	\$ 50,000	\$ 10,000	\$ 50,000	\$ 10,000	\$ 50,000	\$ 10,000	\$ 150,000	\$ 30,000
Platform Fees (Platform Hosting, e.g., Coursera)	\$ 500	\$ 500	\$ 10,500	\$ 10,500	\$ 500	\$ 500	\$ 11,500	\$ 11,500
NRFi Podcast	\$ 61,000	\$ 20,500	\$ 61,000	\$ 20,500	\$ 61,000	\$ 20,500	\$ 183,000	\$ 61,500
Podcasting Resources	\$ 1,000	\$ 500	\$ 1,000	\$ 500	\$ 1,000	\$ 500	\$ 3,000	\$ 1,500
<b>Conference Presentations to</b> <b>Education Healthcare Providers</b>	\$ 60,000	\$ 20,000	\$ 60,000	\$ 20,000	\$ 60,000	\$ 20,000	\$ 180,000	\$ 60,000
Public Speaking Engagements	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 45,000	\$ 45,000

Table 1: Line-Item Budget for First Three Fiscal Years (April 2024-2027). Budget projections (and fundraising priorities) are shown for NourishED Research Foundation's Research, Administrative, Fundraising, and Education & Outreach Teams (shown in blue, orange, green, and purple respectively) for fiscal years 1, 2, and 3, with cumulative 3-year total projections shown in the far-right columns. Columns 2, 4, 6, and 8 show full budget projection needs to support all of NRFi's global operations. Columns 3, 5, 7, and 9 show budget projection needs that can be supported by the Caring for Denver Foundation Community-Centered Solutions grant, as these activities and items will be used to support and serve the Denver Metro Community in alignment with the Caring for Denver Community-Centered Solutions grant funding opportunity.



# **VII. Fundraising Activities**

#### **1. Introduction**

NRFi's strategic fundraising campaigns aims to meet our one-, two-, and threeyear goals of raising <u>\$500,000 to \$1.4 million per year in our first three years</u> to support our mission, motto, aims, and sustainable growth. The rationale for this annual fundraising and revenue (budgeting) goal is outlined in <u>section IX above</u>.

#### 2. NRFi Goals

At NRFi, we use Dr. Bray's SMART-SETS® goal-setting technique to define fundraising goals that are Specific, Measurable, Attainable, Relevant//Realistic, Time-bound, Strategic, Empirically Informed, Tailored to our resources, and Safe (SMART\_SETS®). For example, we aim to increase donor acquisition rate by 100% in our first year and by 15% in our second and third years through robust marketing efforts, such as social media and events.

Please contact our fundraising team to access our specific fundraising goals (SMART-SETS), strategies, and planned activities (nourished@nourishedrfi.org).

#### 3. NRFi Messaging

At NRFi, each employee understands, supports, and stands behind our mission, motto, and aims. We share compelling and authentic narratives that further leverage our impact and convey the urgent need for funding. We highlight the importance of our research in addressing binge eating disorder and improving treatment access. We tailor messages for different platforms (website, social media, presentations).



Please contact our fundraising team to learn more about our fundraising content, narratives, messaging, overall strategies, and planned activities (nourished@nourishedrfi.org).

#### 4. Fundraising Techniques and Platforms

At NRFi, we leverage the following fundraising techniques and platforms. NOTE: This is not an exclusive list. Please contact our fundraising team to access a full and up to date list of our fundraising techniques, platforms, strategies, and planned activities (<u>nourished@nourishedrfi.org</u>).

- i. Social Media Marketing: We find social media campaigning to be a powerful tool to spread awareness about our Mission, Motto, and Aims at Nourished (see section XII.2). We plan to use this for fundraising as well through regular post about our campaigns on LinkedIn, Instagram, and Facebook. We share compelling stories about our research and its impact. We use relevant hashtags, share success stories, and engage with followers.
- **ii. GoFundMe Campaigns:** We have had great success with a smallscale beta GoFundMe campaign and are currently creating a dedicated GoFundMe page to support NRFi needs (as well as NRFi subpages to support specific NRFi needs). We explain the purpose, impact, and urgency of each need. We plan to share the link(s) across our social media channels and website.
- **iii. Local Presentations and Events:** NRFi Founder and Director Brenna Bray, PhD is a world-renowned scientific research speaker and social



justice advocate, as are several of NRFi's board members. We are currently planning several local, national, international, and virtual presentations at local bookstores, coffee shops, community health centers, weight loss clinics, eating disorder centers, emergency shelters and food pantries, as well as national and international healthcare and research conferences. We are currently forming collaborations with other nonprofits to host joint events and maximize audiences. Currently, we are about to launch a free meditation recording and a fundraising yoga class as a gift to donors. We also offer a variety of binge eating resources on our website.

- **iv. LinkedIn Fundraising:** We leverage LinkedIn's network to connect with potential major donors and corporate partners. We plan to add a custom call-to-action button on our LinkedIn Page directing to the donation page.
- v. Email Campaigns: We plan to send personalized emails to our network, detailing our foundation's work and specific funding needs.
- vi. Partnerships with Local Businesses: We plan to partner with local businesses for sponsored events or matching donation campaigns.
- vii. Virtual Events: We plan to organize virtual webinars or workshops related to eating disorders, with a suggested donation for attendance.
- viii. Press Releases: We plan to issue press releases to local media to gain coverage for our foundation's work and fundraising efforts.



#### **5. Donation Page**

We optimize our existing donation page on the NourishED website. We clearly explain how donations will support our research. We include a compelling callto-action and a donation button.

#### 6. Leveraging Our Logo and Branding Kit

At NRFi, we ensure consistent branding across all platforms. We use our logo in social media posts, campaign materials, and presentations. We make our brand recognizable and memorable. We plan to leverage this and offer a variety of forpurchase paraphernalia and "shwag" that will be offered in community event raffles and for purchase on our website.

#### 7. Outro

At NRFi, we recognize that the key to successful fundraising is a compelling story that connects with people's emotions and a clear call-to-action. We share our passion for NRFi's mission and connect with potential donors emotionally. We engage our team, leverage their expertise, and adapt our approach as needed. We emphasize the impact of donations and the tangible outcomes they will support. We also practice ethical and responsible marketing, research, education and outreach, and fundraising to be part of the future we want to create.

Please contact our fundraising team to learn more about our specific fundraising strategies, and planned activities (<u>nourished@nourishedrfi.org</u>).



#### VIII.

# ducation & Outreach Team

#### **1. Interim Director**

• Alyx Luck Barnett, ND

#### 2. Health Education & Outreach Team

- Error! Reference source not found. (Team Lead)
- <u>Hadley Pearce, MS</u>
- <u>Ariana Pizadeh, MS</u>
- Angela Nauss, MS, LMFT
- Error! Reference source not found. (As needed)
- Error! Reference source not found.(As needed)
- Error! Reference source not found. (As needed)

#### **3. Education & Outreach Initiatives**

- **i.** See section VII below.
- ii. NRFi Online Course Trainings, Certifications, & Accreditations
- iii. NRFi's Binge Eating Self-Help Workbook
- iv. Training & Certification Courses in Responsible Human Subjects Research
- v. Podcast (NourishED Podcast)
- vi. Publications Team



## **IX. Education & Outreach Activities**

# 1. NRFi Binge Eating Platform: Textbook, Workbook, Video Modules, & Online Resources

#### A. Overview

The NRFi Binge Eating Platform is a comprehensive resource platform designed to support individuals with binge eating (BE) and binge eating disorder (BED) who are not served by standard of care interventions, often due to lack of health care access or avoidance of stigmatization in health care systems. The platform includes an empirically based textbook and e-textbook, workbook and e-workbook, companion video modules, and additional online resources. Together, the platform aims to provide practical tools and strategies to help individuals understand and manage their binge eating behaviors in the context of the environmental factors they may be experiencing.

The platform is designed to be used in a variety of different ways: (i) a standalone intervention for those who lack access to other resources, (ii) as a tool that providers can integrate into their clinical practice, and/or (iii) as a complement to other clinical approaches. The platform resources are informed by the most up-to-date research on binge eating disorder in under-served populations and are developed with contributions from experts in the field, including Colorado locals Brenna Bray, PhD; Alyx Luck Barnett, ND; Amy Thurston, MPH, RDN; Angela Nauss, MS, LMFT; and Ellie Ashton, MS. The platform resources incorporates



evidence-based practices and community-based approaches and address relevant issues that are overlooked in other standard of care interventions, including invalidating environments, systemic oppression and marginalization, under-resourced and marginalized communities, economic precarity, food insecurity, and nutrition scarcity – and the impact these factors have on the stress system, eating behaviors, physical and mental health quality and efficacy, and eating disorder psychopathology in turn.

NRFi will distribute 3 million free access codes of the minimum viable product (etextbook, e-workbook, and online resources to <u>127 food Pantries</u>, <u>15 community</u> <u>health centers</u>, <u>18 weight loss clinics</u>, and <u>4 eating disorder centers</u> in the Denver Metro area with potential to serve up to 3 million Denver Metro residents. Data will be collected and analyzed to provide information on user demographics, use, safety and efficacy, and user feedback. This data will be published and presented locally and nationally/internationally to provide a better understanding of who has binge eating in under-served communities, who engages with a free treatment option for binge eating, how these individuals can best be served, and to update the minimum viable product in response to user feedback to better serve user needs.

#### **B. Key Features**

#### i. Understanding Binge Eating Disorder

- The platform resources provide an overview of BED, including its causes, symptoms, and impact on mental and physical health.
- The resources explore environmental and social factors that contribute to binge eating, including invalidating environments, systemic oppression and marginalization, under-resourced and



marginalized communities, economic precarity, food insecurity, and nutrition scarcity – and the impact these factors have on the stress system, eating behaviors, physical and mental health quality and efficacy, and eating disorder psychopathology in turn.

## ii. Research-Informed Approaches for Under-Resourced Communities

- The platform resources incorporate cutting-edge research on environmental factors that have historically been overlooked and are now strongly associated with binge eating disorder, including:
  - **a.** Invalidating environments.
  - **b.** Systemic oppression and marginalization.
  - **c.** Under-resourced environments and communities that often experience a variety of additional factors, including those outlined further below.
  - **d.** Body weight/shape/size stigmatization.
  - e. Trauma, adversity, and PTSD.
  - **f.** Discrimination based on body weight/shape/size, race, ethnicity, or socioeconomic status.
  - g. Economic precarity.
  - h. Food insecurity.
  - i. Nutritional scarcity.
  - j. Predatory food industry practices.



These complex factors are overlooked in current standard of care interventions for binge eating disorder, which may attribute to the low treatment success rates (~33%) of these interventions.

- The platform resources address, inform, and account for these factors and offer workable solutions that can be applied within any environment and framework, including individuals and families who have economic precarity, food insecurity, nutrition scarcity, and government assistance reliance.
- The platform resources incorporates evidence-based practices and community-based approaches and address relevant issues that are overlooked in other standard of care interventions, including invalidating environments, systemic oppression and marginalization, under-resourced and marginalized communities, economic precarity, food insecurity, and nutrition scarcity and the impact these factors have on the stress system, eating behaviors, physical and mental health quality and efficacy, and eating disorder psychopathology in turn.

#### iii. Expert Author & Editorial Team

- The resources are developed with contributions from experts in the field, including Colorado locals:
  - a. <u>Brenna Bray, PhD</u>, an expert in Binge Eating Disorder and their environmental factors and social justice underpinnings.



- **b.** <u>Alyx Luck Barnett, ND</u>, an expert in naturopathic and community-based medicine.
- c. <u>Amy Thurston, MPH, RDN</u>, a registered dietician nutrition and public health advocate who has dietetic experience in food pantries and public-school systems in Colorado.
- **d.** <u>Angela Nauss, MS, LMFT</u>, a licensed marriage and family therapist who specializes in cognitive behavioral therapy (CBT) trauma-informed therapy and eating disorders in the Denver Metro population and surrounding areas.

#### iv. Self-Assessment Tools

- The platform textbook, workbook, video modules, and online resources include self-assessment questionnaires to help individuals identify the environmental factors that are relevant to them that can contribute to binge eating patterns and psychopathology.
- The resources offer guidance on setting recovery goals that are <u>S</u>afe, <u>M</u>easurable, <u>A</u>ttainable, <u>R</u>ealistic, <u>T</u>ime-bound, <u>S</u>pecific, <u>E</u>mpirically informed, <u>T</u>ailored, and <u>S</u>calable (SMART-SETS®).
- v. Pragmatic Tools and Coping Strategies to Support Adverse Life Experiences



- The platform resources present a variety of coping strategies to manage difficult life situations *and* the emotions and behaviors that can often accompany them.
- The resources include tools to support meal planning in underresourced individuals and families, including those reliant upon government assistance.
- The resources emphasize the ability of food, nutrition, and eating behaviors to impact physical and mental health *and* recognize the ways food, nutrition, and economic insecurity can limit food and nutrition efficacy.
- The resources emphasize the importance of self-compassion, mindfulness, and other empirically supported approaches to the recovery process.
- The resources emphasize the benefit of complementary and integrative interventions in calming the sympathetic nervous system, reducing cortisol levels, and thus enabling opportunities for new interventions to be learned and implemented and new neural connections and pathways to be formed that can support behavior change.

#### vi. Behavioral Interventions

• The platform resources provide step-by-step instructions for implementing behavioral interventions, such as cognitive-behavioral techniques and stress management practices.



- The resources encourage the development of healthy eating habits and a positive relationship with food.
- The resources provide tools to support meal planning in underresourced individuals and families, including those reliant upon government assistance *and* recognize the ways these factors can impact food and nutrition self-efficacy.

#### vii. Community Support

- The platform resources highlight the benefits of peer-led mutual help interventions and groups, such as Overeaters Anonymous, and provide information on how to access these resources as well as worksheets, activities, and tools that can support twelve-step facilitation.
- The resources encourage individuals to seek support from their community and build a network of allies in their recovery journey.

#### viii. Workbook Exercises

- The companion workbook includes a variety of exercises and activities to reinforce learning and promote self-reflection.
- The workbook offers practical tips for integrating these exercises into daily life.

#### ix. Companion Video Modules

 The companion video modules provide additional support for those who lack access to formal therapeutic interventions.



#### x. Resources and References

- The platform provides a variety of additional resources, including books, websites, and support groups, for further support and information.
- References to relevant research and evidence-based practices are also included.

#### **C. Table of Contents**

- i. Introduction // Using this Workbook
- ii. NRFi Mission, Motto, & Aims
- **iii.** What is Binge Eating Disorder?
- iv. Invaliding Environments & Sense of Self
- v. Stress & Trauma in BE & BED
- vi. Genetic & Epigenetic Factors that contribute to BE & BED
- vii. Cognitive Behavioral Therapy: "Gold Standard Intervention"
- viii. Complementary, Integrative, & Alternative Interventions in BED
- ix. Trauma-Informed Therapy in BE & BED
- **x.** Social Justice, Equity, Diversity, Inclusion, Stigmatization, Access, Marginalization, & InValidation (JEDI-SAM-IV) in BED
- xi. Social Justice, Therapy in BE & BED
- **xii.** Community-Based, Mutual-Help Support Groups and Interventions: Twelve-Step Groups and Twelve-Step Facilitation



- xiii. "Food Addiction" & Navigating Predatory Food Environments and Practices
- xiv. Body Weight/Shape/Size Stigmatization and Clinical Weight Diagnoses
- xv. Stigmatization & Invalidation
- xvi. Economic Precarity, Food Insecurity, & Nutrition Scarcity (And Their Impact of Health Self-Efficacy)
- xvii. Optimizing Nutrition and Meal Planning for Physical and Mental Health – In the Environment You're In (Doing What We Can When We Can)
- xviii. Movement & Exercise Trauma: "Feeling at Home in the Body"
- xix. Free Screening Resources

xx.Support Resources

#### **D. Distribution and Accessibility**

- All resources will be made available in hard/paper and electronic formats to accommodate a variety of user engagement styles and preferences.
- All resources will be made available for purchase (low-cost) through the NourishED website.
- NRFi research will be conducted to test the feasibility, safety, user experience, and efficacy of the workbook in a variety of individuals with binge eating and binge eating disorder in the Denver, CO area. This will



include marginalized and under-resourced individuals (e.g., a representative population). Research participants will receive free access to the workbook and other treatment options used in the study (e.g., community-based, peer-lead, mutual help interventions).

NRFi will distribute 3 million free access codes of the minimum viable 0 product (e-textbook, e-workbook, and online resources to 127 food Pantries, 15 community health centers, and 18 weight loss clinics in the Denver Metro area with potential to serve up to 3 million Denver Metro residents. Data will be collected and analyzed to provide information on user demographics, use, safety and efficacy, and user feedback. This data will be published and presented locally and nationally/internationally to provide a better understanding of who has binge eating in under-served communities, who engages with a free treatment option for binge eating, how these individuals can best be served, and to update the minimum viable product in response to user feedback to better serve user needs.

#### E. Distribution & Accessibility – Caring for Denver Distribution

- a. Free Access Code Distribution: Three million (3 million) free access codes will be distributed to <u>127 food Pantries</u>, <u>15 community health</u> centers, <u>18 weight loss clinics</u>, and <u>4 eating disorder centers</u> in the Denver Metro area.
- **b. Potential Impact:** Up to 3 million Denver Metro residents can be directly impacted by this initiative.



- **c. Minimum Viable Product Distribution:** Up to 3 million Denver Metro residents will receive free access to the minimum viable product (MVP) representation of the e-resource platform, which will include access to the e-textbook, e-workbook, and online resource center with an invitation to participate in research, as described below.
- **d. Optional Research Participation:** Each free minimum viable product access code will include an option for users to participate in a research study that collects two categories of information:
  - Patient Demographics: Patients will be asked to provide information on their race, ethnicity, sex/gender identity, socioeconomic status, weight, physical and mental health status, and eating behaviors. This data can help us better understand (i) who has binge eating and binge eating disorder, (ii) who chooses to use treatment resources when they are made accessible, (iii) who these resources work well for (and why), and (iv) who these resources do not work well for (and why).
  - Use Data: Information on e-platform use (e.g., time spent logged in and engaging with the different resources) will be collected, monitored, and assessed to gauge feasibility and use (e.g., "proof of concept").
  - Safety and Binge Eating Pathology Monitoring: Participants will be asked to participate in routine online screenings for adverse events and serious adverse events as

well as weight, BMI, and binge eating psychopathology and behaviors.

- User Feedback: User feedback will be collected analyzed reflexively for themes that can be used to improve subsequent editions of the platform.
- e. Overall Impact: In addition to directly serving up to 3 million Denver Metro residents, the research collected from target locations will be analyzed, published, and presented locally and nationally to help provide a better understanding of who experiences binge eating disorder among under-served populations.

#### F. Free MVP Distributions – Target Locations & Impact Projections

Distribution locations and potential impact projections are made as outlined below and described further in Appendix

- i. Food Pantries
  - **a. 127 Food Pantries:** 300,000 free access codes for e-platform resources.
  - b. Population Impact: 300,000 Denver Metro residents
    - **Denver Metro population:** ~715,522 to 2.96 million.
    - **Projected Denver Metro food pantry users:** 102,000-423,000.
    - Potential Denver Metro food pantry users with eating disorders: 51,000-212,000.



#### ii. Community Health Centers (CHCs)

a. 15 Community Health Centers (CHCs): 1.8 million free access codes provided.

#### b. Population Impact: 1.8 million Denver Metro residents

- **Projected CHC Users:** 1.875 million.
- Projected CHC users with eating disorders: 93,750-581,250.

#### iii. Low-Cost Weight Loss Clinics

- a. 18 Clinics: 1 million free access codes distributed.
- b. Population Impact: 1 million Denver Metro residents
  - Projected Denver Metro residents with overweight or obesity: 503,200 – 1,065,600.
  - **Projected individuals with overweight or obesity** and eating disorders: 403,000–852,480.
  - Projected individuals with overweight or obesity, eating disorders, and low socioeconomic status: 89,347–89,352.
  - **Denver Metro residents using GLP-1 drugs:** ~12.5% of Denver Metro population.
  - Projected Denver Metro Off-label GLP-1 Drug Use for weight loss: 40%.



 Projected Denver Metro Off-Label GLP-1 drug use with comorbid binge eating: 10,723–118,400.

#### iv. Eating Disorder Centers

a. 4 Clinics: 1 million free access codes distributed.

#### b. Population Impact: 300,000 Denver Metro residents

- **Projected Denver Metro residents with an eating disorder:** 56,862 to 356,936.
- Projected Denver Metro Residents with an eating disorder who lack access to healthcare: 48,333–303,396.



# 1. NourishED CME/CEU Training Courses for Healthcare Providers

#### A. Overview

NourishED plans to prepare a variety of CME/CEU accredited course offerings for healthcare professionals. Our first two course offering will address (i) clinical excellence in eating disorder care and (ii) Justice, Equity, Diversity, Inclusion, Stigmatization, Access, Marginalization, and InValidation (JEDI-SAM-IV//JEDI-VAMOS//JEDI-MOVES). These courses will be made available for-purchase on the NourishED Website as well as through third-party vendors (e.g., Coursera and accrediting agencies). They can also be purchased together in a "Comprehensive Care for Eating Disorders: Integrating Clinical Excellence and Social Justice" package.

#### **B.** Course Description

This CME/CEU training course is designed to equip healthcare providers with the knowledge and skills necessary to effectively identify, assess, and manage eating disorders, while also addressing the critical issues of justice, equity, diversity, inclusion, and validation. The course is divided into two main modules:

#### C. Course/Module 1: Clinical Excellence in Eating Disorder Care (Topics)

- i. Prevalence and Demographic Representation
  - Understanding the prevalence of eating disorders across different populations.



• Recognizing the demographic factors that influence the development and presentation of eating disorders.

#### ii. Detection and Screening

- Identifying early signs and symptoms of eating disorders.
- Utilizing evidence-based screening tools and techniques.

#### iii. Assessment and Evaluation

- Conducting comprehensive assessments to determine the severity and impact of eating disorders.
- Evaluating co-occurring mental health conditions and medical complications.

#### iv. Diagnosis and Referrals

- Applying diagnostic criteria for eating disorders.
- Making appropriate referrals to specialized care and support services.

#### v. Management and Care

- Developing individualized treatment plans that address the unique needs of each patient.
- Implementing evidence-based interventions and therapies.

#### vi. Importance of Bedside Demeanor

• Building rapport and trust with patients through compassionate and empathetic communication.



- Creating a supportive and non-judgmental environment for patients.
- D. Course/Module 2: Justice, Equity, Diversity, Inclusion, and Stigmatization, Access, Marginalization, and Invalidation (JEDI-SAM-IV) – Topics Covered
  - i. Justice and Equity in Healthcare
    - Understanding the systemic barriers that contribute to disparities in eating disorder care and healthcare at large.
    - Promoting equitable access to treatment and resources for all individuals.

#### ii. Diversity and Inclusion

- Recognizing the diverse cultural, social, and economic backgrounds of patients.
- Implementing culturally responsive care practices.

#### iii. Stigmatization (De-)

- Addressing and reducing stigmatization and healthcare inequity related to body weight/shape/size, eating disorders, and mental and physical health diagnoses at large.
- Identifies the ways in which healthcare provider stigmatization especially related to body weight/shape/size and eating disorders – contributes to patient harm and healthcare avoidance (further resulting in low detection).



• Promoting positive attitudes and beliefs about mental health and recovery.

#### iv. Access and Marginalization (De-)

- Identifying and addressing barriers to accessing care for marginalized populations.
- Advocating for policies and practices that promote inclusivity and accessibility.
- Providing healthcare providers with free and low-cost treatment alternatives and resources they can offer under-resourced patients.

#### v. Liberation and Validation

- Empowering patients to take an active role in their recovery journey.
- Validating patients' experiences and perspectives to foster a sense of agency and self-efficacy.

#### **E.** Course Format

- i. Lectures and Presentations
  - Delivered by experts in the field, covering key concepts and best practices.

#### ii. Interactive Workshops

• Hands-on activities and case studies to apply learning in real-world scenarios.



#### iii. Panel Discussions

• Featuring diverse voices and perspectives from patients, providers, and advocates.

#### iv. Q&A Sessions

• Opportunities for participants to ask questions and engage in discussions with instructors.

#### F. Accreditation

This course is accredited for Continuing Medical Education (CME) and Continuing Education Units (CEU) for healthcare providers. Participants will receive certification upon completion of the course. The following organizations will be considered and pursued for accreditation:

- i. Accreditation Council for Continuing Medical Education (ACCME)
  - **a.** Description: ACCME accredits organizations that offer CME primarily to national or international learners
  - **b.** Initial accreditation fees: \$10,600.
  - c. Annual accreditation fees: <u>\$6,500</u>.
  - d. Three-year accreditation costs: \$23,600.
  - e. Website: <u>https://accme.org/wp-</u> content/uploads/2024/06/110\_20231218\_accreditation\_fees.pdf)
- ii. International Accreditors for Continuing Education and Training (IACET).
  - **a.** Description: IACET provides accreditation for continuing education and training programs across various disciplines



- **b.** Initial accreditation fees: \$4,290.
- c. Annual accreditation fees: \$1,095.
- d. Three-year accreditation costs: \$6,480.
- e. Website: <u>https://iacet.org/</u>.
- iii. American Nurses Credentialing Center (ANCC):
  - **a.** Description: ANCC accredits organizations that offer continuing education for nurses.
  - **b.** Initial accreditation fees: \$4,650.
  - **c.** Annual accreditation fees: \$3,000.
  - **d.** Three-year accreditation costs: \$10,650.
  - e. Website: <u>https://www.nursingworld.org/organizational-</u> programs/accreditation/ncpd/accreditation-fees/.
- iv. The Joint Commission (TJC)
  - **a.** Description: TJC offers accreditation for continuing education across multiple healthcare professions
  - **b.** Initial accreditation fees: \$1,990.
  - c. Annual accreditation fees: \$1,990.
  - d. Three-year accreditation costs: \$5,970.
  - e. Website:

https://www.jointcommission.org/resources/continuingeducation-credit-information/.



#### **G.** Cost Considerations

#### i. Accreditation Fees

#### a. TOTAL ACCREDITATION COSTS: \$46,700 for 3 yrs.

- Initial accreditation fees: \$21,530.
- Annual accreditation fees: \$12,585.
- Three-year accreditation costs: \$46,700.
- i. Development Costs: \$40,500 \$90,500 in yrs. 1 and 3; \$50,500 100,500 in yr. 2; \$131,500 \$281,500 for three years)
  - a. Content Creation (\$30-40,000 per year; \$90,000 12,000 for three years): This includes research, writing, and peer review. Costs can range from \$5,000 to \$20,000 per course.
  - b. Production Fees (\$10,000 \$50,000 per year; \$30,000 \$150,000 for 3 years): Video production, editing, and hosting can cost between \$10,000 \$50,000 depending on the quality and length of the content.
  - c. Platform Fees (\$500 in first and third years; \$10,500 in second year; \$11,500 for three years): Hosting a course or courses on platforms like Coursera involves several additional cost considerations, which vary depending on the type of course(s) offered and the type of pricing model selected. The basic pricing structures are outlined below. We will test pilot our first two course and offer them as two or more individual courses



AND as a specialization // professional certificate (when used together). We will opt to pursue the Coursera Plus Subscription that allows access to multiple courses. We anticipate this approach to cost \$399 per year (through the Coursera Plus Subscription). In the second and third years, we will aim to produce a full degree. Costs for this begin at \$9,000. Thus, we aim to raise \$500 to support Coursera fees in the first year, \$10,500 in the second year, and \$500 in the third year for a total of \$11,500 to support needs for all three years).

- Individual Courses: These typically range from \$30 to \$100.
- <u>Specializations and Professional Certificates</u>: These are <u>subscription-based</u>, starting at around \$39.99 per month.
- Coursera Plus Subscription: This allows access to multiple courses and costs \$399 per year.
- **Full Degrees**: These can be quite expensive, starting at around \$9,000.
- Coursera also offers free courses, but if you want to provide certificates or access to graded assignments, there will be associated costs.
- Would you like more detailed information on any specific type of course or pricing model?



ii. Total Estimated Costs: \$62,100 - \$112,100 in year 1; \$63,100 - \$113,100 in yr. 2; \$53,100 - 103,100 in yr. 3; \$178,300 - \$328,300 for 3 yrs.)

We project costs for the initial two courses to range from \$53,100 - \$113,100 per year, depending on which year and which pricing bracket is pursued, for a total cost estimate of \$178,300 - \$328,300 for three years.

#### H. Pricing for Courses: \$1,000 per course.

The pricing for CME/CEU courses can vary widely based on the content, duration, and accreditation. Here are some general guidelines:

- i. Short Courses (1-2 hours): \$50 \$150
- ii. Medium Courses (3-5 hours): \$150 \$300
- iii. Comprehensive Courses (6+ hours): \$300 \$1,000

We plan to offer a mix of free and paid courses to help attract a broader audience and provide value to healthcare providers.

#### I. Net Sales Projections: Net Gains after first 328 sales.

If courses are sold at \$1,000 per course and we offer sale of two courses (\$2,000 total), we can make up the costs of development, production, accreditation, hosting, and distribution in the first 180 - 330 course sales. If users purchase both courses, this will require 90 - 165 users. If we target healthcare institutions and assume that one institution presents five users



who purchase access to both courses (\$10,000 total), these costs can be made up through enrollment of 9 - 17 institutions.



#### 2. Social Media Campaigns

#### A. Overview

At NourishED Research Foundation (NRFi), we aim to impact and change the environment eating disorders occur in to create a better future for everyone. We achieve this aim in part through leveraging our social media platforms-Instagram, Facebook, and LinkedIn-alongside Dr. Bray's AboutBoulder.com health column to amplify education and awareness about eating disorders and their social justice implications. Our campaigns prioritize accurate information on eating disorder demographics and prevalence rates, aiming to dismantle the "SWAG stereotype" that misattributes these conditions solely to "skinny, white, affluent girls." Our SEO analytics reveal that our website (www.nourishedrfi.org) is the top result for the search term "Nourished," and our social media posts reach over 5,000 new individuals per post, with over 500 engaging through likes, follows, shares, and comments. This significant impact is achieved with a minimal marketing budget, personally funded by Dr. Bray. With just \$30, one post can reach thousands, and with greater funding, we are confident in our ability to expand our reach and create a more supportive environment for those affected by eating disorders.

#### **B.** Social Media Outlets

At NourishED, we prioritize the following social media platforms:

i. NRFi Website (<u>www.nourishedrfi.org</u>)



- ii. Instagram (<u>https://www.instagram.com/nourishedrfi/?next=%2F</u>)
- iii. Facebook (<u>https://www.facebook.com/people/Nourished-Research-Foundation-NRFi</u>)
- iv. LinkedIn (<u>https://www.linkedin.com/company/nourished-research-foundation-nrfi/</u>)
- v. Dr. Bray's AboutBoulder.com health column (https://aboutboulder.com/columnists/brennabray/)

#### C. Impact

#### i. Website:

Our SEO analytics reveal that our website (www.nourishedrfi.org) is the top result for the search term "Nourished," and we actively receive messages and inquiries from folks who have eating disorders and are seeking help, as well as from folks who want to support our mission.

#### ii. Facebook Campaigns

#### a. First Month Impact:

- Followers: 5,018 new followers.
- **Reach:** Each post reaches an average of 884 new users.
- Engagement: 43 new users engage with each post.
- New Followers: 6 new users follow the page per post.
- **Budget:** Managed by a single intern with a budget of <\$75.
- See Figure 6 on pg. 89 below.

#### **b.** Continuous Impact (45 Days):



- **Reach:** 25,600 unique users.
- Engagement: 252 content interactions.
- New Followers: 130 new followers.
- Link Clicks: 320 clicks to website or research articles.
- Organic Reach: 159 users.
- **Boosted Reach:** 25,528 users with <\$50 budget.
- See Figure 7 on page 89 below.
- c. Daily Impact (45 Days):
  - Average Reach: 650 new users per day.
  - **Budget:** <\$75 spent across Facebook and Instagram.
  - See Figure 8 on page 90 below.

#### iii. Instagram Campaigns

#### a. Continuous Impact (30 Days)

- **Reach:** 3,900 unique users.
- Engagement: 454 content interactions.
- Link Clicks: 87 clicks to website or research articles.
- **Organic Reach:** 218 users.
- **Boosted Reach:** 3,770 users with <\$50 budget.
- See Figure 9 on page 90 below.

#### b. Daily Impact (30 Days):

- Average Reach: 147 new users per day.
- **Budget:** <\$75 spent across Facebook and Instagram.



• See Figure 10 on page 91 below.

#### iv. Advertisement Impact

#### a. Generic (AI) Social Media Advertisement (June 2024)

- **Reach:** 34,439 new users.
- **Engagement:** 378 post engagements.
- Link Clicks: 376 clicks at \$0.42 per click.
- **Demographics:** Valuable insights into age, gender, and location of users reached.
- See Figure 11 on page 92 below.

#### b. "SWAG Stereotype" Advertisement

- **Reach:** 3,282 new users in 5 days.
- Engagement: 250 post engagements.
- Link Clicks: 240 clicks with \$34 budget.
- See Figure 12 on page 93 below.

#### v. Organic Post Impact

- c. Food Insecurity Post
  - **Reach:** 408 new users.
  - **Impressions:** 412 impressions.
  - **Engagement:** 7 post engagements without advertisement boosting.
  - See Figure 13 on page 94 below.



vi. Impact Summary: Overall, these results highlight the effectiveness of NRFi's social media campaigns in reaching and engaging a broad audience with a modest budget and limited resources. This demonstrates feasibility (e.g., "proof of concept") and efficacy of our current methods and provides an indication of what we can accomplish with greater resource access.



#### **D.** NourishED Social Media Campaign Impact Figures

Figure 1: The NourishED Research Foundation Website Homepage (www.nourishedrfi.org)

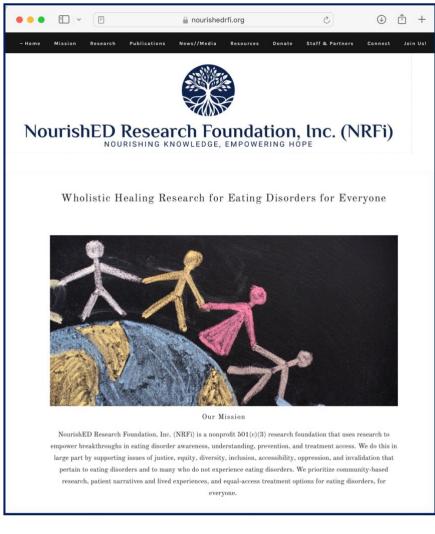


Figure 1: The NourishED Research Foundation (NRFi) Website was established in April, 2024 using the domain <u>www.nourishedrfi.org</u>. NRFi also owns several additional domains that route to the primary domain, including <u>www.nourishedrfi.com</u>, <u>www.nourishedrfi.com</u>, <u>www.nourished-rfi.com</u>, and <u>www.nourishedrfi.xyz</u>. GoDaddy was used to build the site and is used to maintain the site, monitor its use, and design, schedule, and implement social media campaigns that simultaneously post to Facebook and Instagram.



#### Figure 2: NRFi Website Organic Traffic and Use

Site Visitors	Conversations	Social Views	What's This Score?		
2,520 + 433 (last 30 days)	<b>9</b> + 4 (last 30 days)	8,665 + 6,251 (last 30 days)	We measure your online performance, compared to online businesses like yours. A high score means you're engaging visitors well, while a low score means there's room to improve.		
$\frown$			How's it calculated?		
You're one of the top-performin sites. What is this score?	ıg		Your score calculates website engagement and social presence. It factors in how often your website is viewed, how many visits convert into sales or bookings, and how active your customers are on your connected social accounts.		
lere's how you're perf	orming Last 30 days 🗸		Why does it change? Your score is relative to the performance of businesses like yours. For example, your score may go up if your site traffic is high compared to		
Site Visitors	Conversations	Social Views	similar businesses. Or, your score may go down if your monthly sales are lower than those same businesses.		
433	4	6,251			
+ 83 (last 7 days)	+ 3 (last 7 days)	+ 1,116 (last 7 days)	How can you improve your score? Proactively take actions that drive traffic to your website and convert visitors into paying customers. This includes making social and blog posts, creating email campaigns, and responding to your customers' reviews. Don't worry! We'll provide personalized recommendations along the way.		

**Figure 2** NRFi Website Organic Traffic and Use. Since the NRFi website conception on April 1, 2024, the website has had 2,520 unique site visitors (including unique 433 visitors between Aug 9-Sept 9, 2024, and 83 between Sept 2-9), 8,665 unique social views (e.g., website views within social media networks such as Instagram or Facebook), and 9 conversations (including 4 between Aug 9 – Sept 9 and 3 between Sept 2-9), according to GoDaddy analytics. Additionally, we are consistently ranked as one of GoDaddy's top-performing sites with a score of 99/100 since conception and in the past month and past week. The performance score measures online performance compared to online businesses similar to the business being scored. Scores are ranked out of 100. A high score indicates high visitor engagement. Scores are calculated based on website engagement and social media presence. Scores factor in how often the website is viewed, how many visitors convert into sales or bookings, and how active the customers are on connected social media accounts. Scores change relative to performance of businesses like the business under analysis. For example, a site's score may improve if the site traffic is high compared to similar businesses or decline if monthly sales are lower than that of similar businesses/sites.

п



#### Figure 3: NRFi Website Google Ranking

Your Rankin	9	This is the page your website appears on when someone searches for your business name. The best performing results appear on page 1.		
Your daily page	position and rank on Google.	Page ① P		
G Nourishi	ED Research Foundation, Q Fi)			
		The position of your website on the page you rank for. If you are the top		

Figure 3: NRFi Website Google Ranking. According to Google Analytics, the NRFi website page is the first site to appear when someone searches for our business name and the first position on the page we rank for, meaning that we are the top result on the page, with top page and position performance rankings (as indicated by a score of #1). Figure 5: NRFi Google Search Metrics

Google Search Metrics	Google Search Metrics	
Show data for Last Month $$	Show data for Last Week $$	NourishED Research Foundation, Inc. (NRFI
Impressions 🛈	Impressions ①	Impressions ①
52 <sub>~ 36%</sub>	6 ~ 45%	How many times someone saw you site as an option in search results.
Clicks ①	Clicks ①	Clicks ①
<b>3</b> ∼ 78%	O ~ 100%	The total number of times someor clicked to view your website from search results.
Average Position ①	Average Position ①	Average Position ③
19.2 ~ 34%	4.5 ~ 60%	Your site's average ranking in Google search results. The lower the number the better — the top result is ranked #1

Figure 4: NRFi Google Search Metrics. According to Google Analytics, the NRFi website had 52 site "impressions" (instances in which someone saw our website as an option in Google search results in the past month (and 6 in the past week)), 3 "clicks" (instances in which someone clicked to view our website from a search result), and our average ranking in Google search results was 19.2 in the past month and 4.5 in the past week (demonstrate a 60% ranking improvement in one month).

#### Figure 4: NRFi Website Organic Search Discovery

How customers found Show data for Last Month	-			Word searched ① The phrase someone typed into Google that caused your website to appear in results.
Word searched ①	Impressions 访	Clicks (j)	Average Position i	How many times someone saw your site as an option in search results.
eating disorder nonprofit	1	0	49	Clicks ① How many times someone clicked on your site after searching this phrase.
eating disorder screening tools	1	0	5	Average Position ① The average position of your website in results when someone searched
gripanol	1	0	31	this phrase. If you are the top result, your position is 1.

*Figure 5: NRFi Website Discovery. In the past month (Aug 9 – Sept 9), we appeared in Google word searches for "eating disorder nonprofit," "eating disorder screening tools," and "gripanol," appearing 49th, 5th, and 31st for those three-word searches.* 

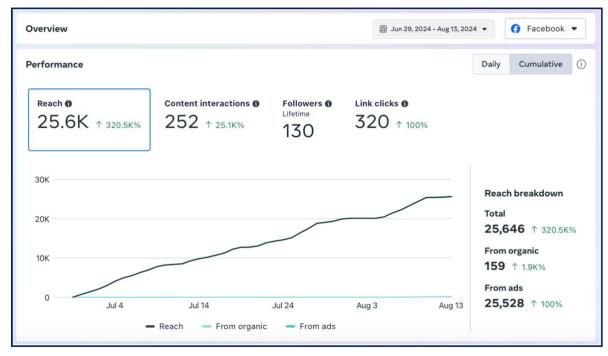




#### Figure 5: Social Media Campaign Impact: 5,018 Followers in First Month

Professional Profile Overview Followers: 5,018 Last 28 days			See more insights
<ul> <li>Post reach (1)</li> <li>884</li> </ul>	<ul> <li>Post Engagement ()</li> <li>43</li> </ul>	<ul><li>New follower</li><li>6</li></ul>	s 🚯

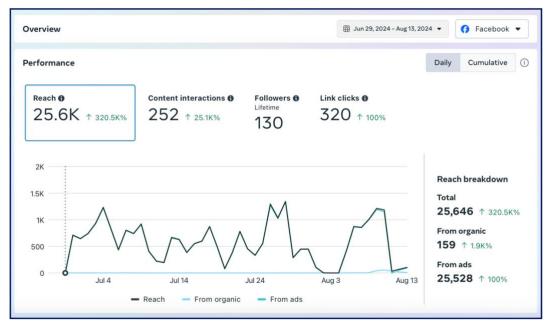
Figure 6: 5,018 Followers in First Month. Our Meta Business Suite analytics show us that in the first month of our social media campaign, we gained 5,018 new followers. Each new social media post reaches an average 884 new users with 43 new users engaging with the post (e.g., liking, commenting, and sharing) and 6 new users following our page. Our campaigns are currently managed by a single intern responsible for creating, scheduling, posting, and boosting all posts with a budget of <\$75 split across all Facebook and Instagram posts.



#### Figure 2: Continuous Facebook Impact (25.6K New Users in 45 Days)

Figure 7: Continuous Facebook Impact (25.6K New Users Reached in 45 Days). Meta Business Suite Analytics reveal that in the first 45 days of our Facebook campaign, we reached 25,600 unique users, achieved 252 content interactions (e.g., "liking," commenting, sharing), gained 130 new followers and received 320 link clicks (e.g., clicking in hyperlinks to our website or research articles). Of the total 25,646 reaches we achieved, 159 were from organic (non-advertised) posts and 25,528 were from posts that were "boosted" (advertised) with a small budget of <\$50. The campaign was managed by a single intern responsible for creating, scheduling, posting, and boosting all posts with a budget of ~\$70 split across all Facebook and Instagram posts.





#### Figure 3: Daily Facebook Impact (650 New Users Per Day Average)

Figure 8: Daily Facebook Impact (650 New Users Per Day on Average). Our Meta Business Suite Analytics show us that in the first 45 days of our Facebook campaign, we reached 25,600 unique users at a rate of 650 new users reached per day. These results were achieved with a conservative advertising budget of <\$75 spent in total across all Facebook and Instagram during this time (e.g., ~\$35 spent on Facebook and Instagram ads over the course of 45 days) and a single intern managing the campaign (including creating, posting, and boosting posts).

#### Figure 4: Continuous Instagram Impact (3.9K New Users in 30 Days)

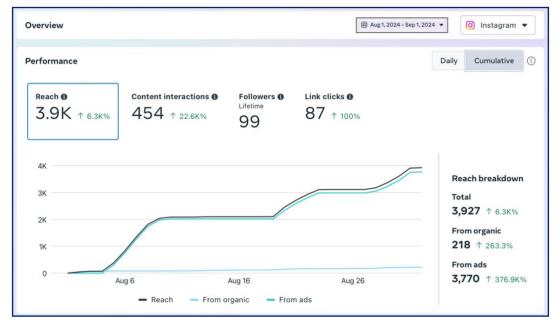


Figure 9: Continuous Instagram Impact (3.9K New Users Reached in 30 Days). Meta Business Suite Analytics reveal that in Aug 2024, our Instagram campaigns reached 3,900 unique users and achieved 454 content interactions (e.g., "liking," commenting, sharing) and 87 link clicks (e.g., clicking in hyperlinks to our website

or research articles). We reached 218 users organically (without advertised) and 3,770 users through posts that were "boosted" (advertised) with a small budget of <\$50.

#### Figure 5: Daily Instagram Impact (650 New Users Per Day on Average)

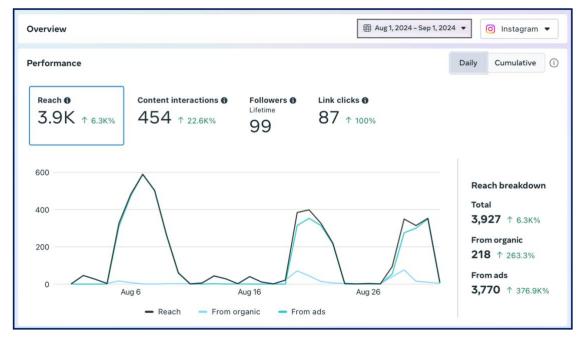
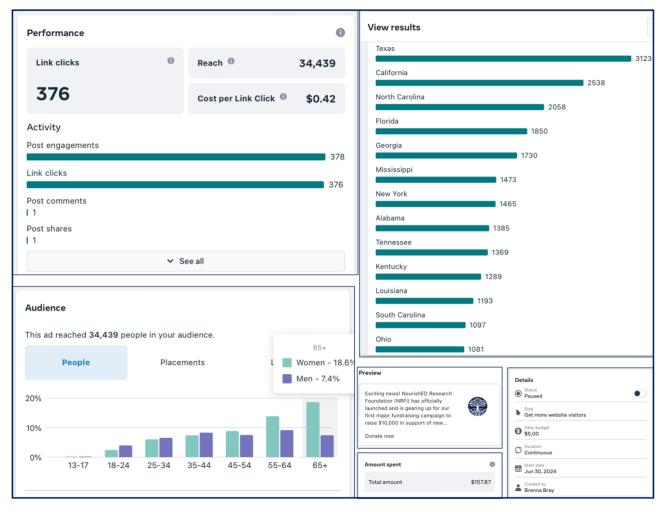


Figure 10: Daily Instagram Impact (147 New Users Per Day on Average). Our Meta Business Suite Analytics show us that in the month of August (2024), our Instagram campaign reached 3,900 unique users at a rate of 147 new users reached per day on average. These results were achieved with a conservative advertising budget of <\$75 spent in total across all Facebook and Instagram ads (e.g., ~\$35 over the course of 45 days allotted to Facebook and Instagram ads) and a single Social Media intern managing the campaign (including creating, posting, and promoting ads).



# Figure 6: Social Media Ad Impact (34,439 Reached, 378 Engaged; Demographic Data)



**Figure 11: Social Media Advertisement Impact (34,439 Reached; 378 Engaged; Valuable Demographic Information Obtained).** A generic post created by Meta Business Suite that was posted on June 30, 2024, and "boosted" daily for 31 days with a budget of \$5 per day (\$157.87 allocated advertising costs total) reached **34,439 new users** and achieved **378 post engagements**, **376 website link clicks** (at a cost of \$0.42 per link click). Additionally, analytic data revealed important **demographic information about the 34,439 individuals who this advertisement reached.** For example, 18.6% of people reached were women 65+ years old, 13.8% were women 55-64 y/o, 9.1% were men 55-64 y/o, 8.8% were women 45-54 y/o, 8.3% were in CA, 2,058 were in North Carolina, 1,850 were in FL, then GA, MS, NY, AB, TN, KT... etc. This type of analytic data can provide invaluable insights into (a) the types of individuals who engage with content-specific social media campaigns that address eating disorders; (b) the types of individuals who are most likely to be served by social media campaigns and respond to social media surveys; and (c) the types of individuals who are likely to be impacted by binge eating who can be reached through social media. Whether these possibilities are in fact true will be tested through NRFi's <u>"Adults Seeking Support for Eating and Weight Concerns through Social Media Communities" Survey Study</u> (See Section XIV.1 on pg. 109 below).



#### Figure 7: "SWAG Stereotype" Advertisement Impact (3.8K New Users Reached)

ecent ads elect an ad to view its performance. Ads cr	eated in the last 60 days will appear here.	Create new ad Manage ads
Completed Messages Completed on Aug 19 Goal: Get more messages	Completed Post engagements Completed on Aug 10 Goal: Post Engagements	Completed Link clicks Completed on Aug 10 Goal: Get more website visitors
eated by Brenna Bray Link clicks ①	Reach	Boost again View results Activity
240	3,828	Post engagements 250 Link clicks 240
Amount spent 🟮	Cost per Link Click 0	Post saves
\$34.00	\$0.14	Post shares

Figure 12: "SWAG Stereotype" Advertisement Impact (3.8K New Users Reached). Our Meta Business Suite Analytics show us that when a post on the "SWAG" stereotype that mistakenly ascribes all eating disorders to "skinny white affluent girls" was "boosted" with just \$34, we reached 3,282 new unique users and achieved 250 post engagements (e.g., post comments and "likes") and 240 link clinks (e.g., clicking on a hyperlink that directs the user to our website or a related research article) in just five days.



**Figure 8: Organic Post Impact (408 New Users Reacted to a Post on Food Insecurity)** 

Post Insights						×	
entrance in the second se	Image: Second						
Post Imp <b>412</b>	Post Impressions (1)Post reach (1)Engagement (1)4124087						
Intera	ctions	0	<b>e</b>	<b>**</b> 0	<mark>;;)</mark> 0	•••	0

Figure 13: Organic Post Impact. Our Meta Business Suite Analytics show us that a single post on food insecurity in binge eating disorder reached 408 new unique users and achieved 412 impressions and 7 post engagements (e.g., post comments and "likes") without advertisement boosting.



#### 3. NourishED Podcast

#### A. Title

#### i. The NourishED Podcast

• The NourishED Podcast | Season 1: Nourishing Knowledge, Empowering Hope for Eating Disorders, For Everyone!

#### ii. Alternative Options

- **"NourishED Voices:"** Emphasizes the diverse perspectives and voices you'll be featuring.
- **"NourishED Insights:"** Highlights the educational and informative nature of the podcast.
- **"NourishED Conversations:"** Suggests a dialogue-based format, which can be inviting to a broad audience.

#### **B.** Hosts (Season 1)

**Error! Reference source not found.** 

**Error! Reference source not found.** 

#### **C. Description**

The NourishED Podcast is the podcast companion for the NourishED Research Foundation, a nonprofit research organization that uses research to empower breakthroughs in eating disorders and the environments that eating disorders exist in. The podcast serves to support NRFi's ongoing community-based outreach and research efforts. It prioritizes the narratives, lived experiences, barriers, and needs of individuals with eating disorders. We also



prioritize equal-access options for treatment and health self-efficacy for eating disorders, for everyone.

Like NRFi at large, the podcast "Nourishes Knowledge and Empowers Hope, for Eating Disorders, for Everyone!"

Season One (1) of the NourishED Podcast is an educational series designed to accompany the Binge Eating Workbook. Co-hosted by Dr. Brenna Bray and Ellie G. Ashton, each episode delves into the themes and concepts presented in the workbook, providing listeners with additional insights, practical tips, and inspiring stories. The podcast aims to support individuals on their journey to recovery by offering expert advice and real-life experiences.

#### **D. Intro & Outro**

i. Intro

Keep it concise and engaging. Start with a brief welcome, introduce the podcast's mission, and provide a short introduction of the hosts. For example:

> "Welcome to The Bray-Grey NourishED Podcast, where we nourish knowledge and empower hope for eating disorders, for everyone. I'm Dr. Brenna Bray, a scientific neurobiological stress researcher, and I'm joined by my co-host, Dr. Ellie Grey Ashton, a trauma-informed clinician. Together, we'll explore the intersection of binge eating disorder and social justice issues."



#### ii. Outro

Summarize the key points discussed in the episode and provide actionable takeaways for the audience. Encourage listeners to subscribe, leave a review, and share the podcast. For example:

> "Thank you for joining us on The Bray-Grey NourishED Podcast. We hope today's discussion has provided valuable insights and support. Remember to subscribe, leave a review, and share this podcast with others who may benefit. Together, we can make a difference."

#### E. Season 1: Accompanying the Binge Eating Workbook

#### i. Episode Structure

- a. Episode 1: Introduction to the Concept or Theme
  - Each workbook chapter is represented in one to two podcast episodes.
  - The first episode introduces the concept or theme of the workbook chapter, providing an overview and key takeaways.

#### b. Episode 2: Guest Stories and Expert Insights

 The second episode features a guest whose story is relevant to the contents of the chapter or an expert whose expertise is relevant.



 Guests may include individuals who have experienced binge eating disorder, expert researchers, clinicians, and healthcare administrators.

#### ii. Key Features

#### a. Educational Content

- In-depth discussions on the causes, symptoms, and impact of binge eating disorder.
- Practical tips and strategies for managing binge eating behaviors.

#### **b.** Guest Stories

- Personal stories from individuals who have experienced binge eating disorder, offering hope and inspiration to listeners.
- Insights into the challenges and triumphs of recovery.

#### c. Expert Interviews

- Conversations with leading researchers, clinicians, and healthcare administrators in the field of eating disorders.
- Expert advice on evidence-based practices and the latest research findings.

#### d. Interactive Elements:

 Opportunities for listeners to submit questions and topics for future episodes.



Engaging discussions and Q&A sessions with the hosts and guests.

#### F. Marketing & Branding

#### i. Marketing

The NourishED podcast will utilize social media platforms for promotion. We will create engaging content such as teaser clips, quotes from episodes, and behind-the-scenes looks. We will collaborate with influencers and organizations in the eating disorder and mental health communities in Denver to reach a wider audience. We will also dedicate a section of the NourishED website to the podcast, where listeners can find episodes, show notes, and additional resources.

#### ii. Branding

We will incorporate the NourishED logo into our marketing and branding to reflect the mission of NourishED and symbolize growth, support, and community. The NourishED logo is clean and professional, with a color scheme that is inviting and calming (see header of this document).

#### iii. Website

We will dedicate a section of the NourishED website to the podcast, where listeners can find episodes, show notes, and additional resources.

#### iv. Platform Availability



The podcast will be made available on Apple Podcast and Spotify, as well as through our website and social media pages.

#### G. Accessibility and Availability

The NourishED Podcast will be available on major podcast platforms, including Apple Podcasts and Spotify. Episodes will be released weekly, and listeners can subscribe to stay updated on new releases. The podcast aims to provide accessible and valuable resources for individuals using the Binge Eating Workbook, particularly those who may lack access to healthcare providers or therapists.



#### 4. Binge Eating Platform Video Modules

#### A. Overview

The Binge Eating Workbook Video Modules are designed to provide additional support and resources for individuals using the Binge Eating Workbook. These modules aim to enhance the workbook experience by offering guided instruction, practical exercises, and expert insights. The video modules are particularly beneficial for users who lack access to healthcare providers or therapists who can guide them through the workbook. These modules will be available for purchase on the NourishED website.

#### **B. Key Features**

#### i. Introduction to Binge Eating Disorder

Overview of binge eating disorder, its causes, symptoms, and impact on mental and physical health.

Explanation of the workbook's structure and how to use it effectively.

#### ii. Self-Assessment and Goal Setting

Guided self-assessment exercises to help individuals identify their triggers and patterns of binge eating.

Tips for setting realistic and achievable goals for recovery.

#### iii. Coping Strategies

Demonstrations of various coping strategies to manage difficult emotions and reduce binge eating episodes.



Techniques for practicing self-compassion and mindfulness.

#### iv. Behavioral Interventions

Step-by-step instructions for implementing cognitive-behavioral techniques and stress management practices.

Guidance on developing healthy eating habits and a positive relationship with food.

#### v. Community Support

Information on the benefits of peer-led mutual help groups, such as Overeaters Anonymous.

Tips for building a support network and seeking community resources.

#### vi. Workbook Exercises

Detailed walkthroughs of workbook exercises and activities.

Practical tips for integrating these exercises into daily life.

#### vii. Expert Insights

Interviews and discussions with experts in the field of eating disorders, including Angela Nauss, LMFT, and Ellie Ashton, MS.

Insights on the latest research and evidence-based practices for managing binge eating disorder.

#### viii. Q&A Sessions

Responses to common questions and concerns from workbook users.



Opportunities for users to submit their own questions for future video modules.

#### ix. Accessibility and Pricing

The video modules will be available for purchase on the NourishED website. We aim to make these resources affordable and accessible to all individuals, particularly those who may not have access to healthcare providers or therapists. Users can purchase individual modules or a complete package at a discounted rate.

#### 5. Conference Presentations to Educate Healthcare Providers

#### A. Overview

Dr. Bray is a renounced international researcher and speaker. She will present at healthcare conferences locally and globally. Presentation fees, including travel, are projected to range from

#### B. Costs (\$20,000 - \$60,000 for one year; \$60,000 - \$180,000 for three years).

Conference registration fees typically range from \$1,000 - \$3,000, with travel costs ranging from \$1,000 - \$3,000 as well (\$2,000 - \$6,000 per conference). NRFi is seeking funding to support presentation at up to ten conferences annually. This will support dissemination of Dr. Bray's work and also support the career development of up to five research investigators who Dr. Bray will mentor in preparing and submitting research abstracts and presenting NRFi work at conferences. Thus, associated costs will range from \$20,000 - \$60,000 per year and \$60,000 - \$180,000 for three years.



# 6. Public Speaking Engagements (\$15,000 annually; \$45,000 for three years)

#### A. Overview

Dr. Bray is a world-renowned researcher and public speaker. She will engage in a variety public speaking events locally, nationally, and internationally to raise awareness of NRFi. She will also provide mentorship to up to five NRFi staff members to support local communitybased speaking engagements initiated by NRFi regional leaders.

#### B. Costs (\$20,000 - \$60,000 for one year; \$60,000 - \$180,000 for three years).

Costs associated with these engagements are projected to be \$15,000 per year and \$45,000 for three years. These costs will cover up to 5 speaking engagements per year, including fees associated with space rental, light refreshments, travel, lodging, and associated insurance, and a small budget reserve).



## **X.Research Team**

#### **1. Research Focus Teams**

#### A. Real-Life Intervention Use in Adults with Eating and Weight Concerns

- i. Team Lead: Error! Reference source not found.; Error! Reference source not found.
- ii. Support Team
  - a. Jan Rodriguez (Team Lead)
- **B. BED in U.S. Veterans** 
  - i. PI: Error! Reference source not found.

#### C. Somatosensory & Neurodivergence in BED

- i. Team Lead: Ariana Pizadeh, MS
- **ii.** Team Support:
  - (i) Error! Reference source not found.

#### iii. PI: Error! Reference source not found.

## D. Public Health and Policy Initiatives to Improve Mental Health and Homelessness in Ghana

- i. Team Lead: Error! Reference source not found.
- ii. PI: Error! Reference source not found.

#### E. Heart Rate Variability in Binge Eating Disorder

i. Team Lead: Error! Reference source not found.



- ii. PI: Error! Reference source not found.
- iii. Team Support
  - b. Error! Reference source not found.

#### F. Treatment Barriers in BED

i. Team Lead: Error! Reference source not found.

#### G. CIH in BED

i. Team Lead: Error! Reference source not found.

#### ii. External Investigators:

- a. Jordan Quaglia, PhD
- **b.** External investigator (Pending Confirmation)
- c. Naropa University; Core Associate Professor, Research Director of Center for Advancement of Contemplative Education (CACE) and Cognitive and Affective Science Laboratory (CASL)
- d. https://www.naropa.edu/profile/jordan-quaglia/
- e. https://www.jordanquaglia.com

#### H. Treatment Factors & Phenomenon in BED

- i. Team Lead & PI: Error! Reference source not found.
- ii. Support Team:
  - a. Error! Reference source not found.



- b. Error! Reference source not found.
- c. Error! Reference source not found.

#### I. Reward Dysregulation in BED

i. Team Lead & PI: Error! Reference source not found.

#### ii. Support Team:

- a. Ariana Pizadeh, MS
- b. Jamie Scholl Bushman
  - A. Pending Confirmation
  - B. External Investigator (Pending Confirmation)
  - C. University of South Dakota, Sanford School of Medicine, Center for Brain and Behavior Research (CBBRe)
  - D. https://www.usd.edu/research-and-faculty/faculty-and-staff/jamie-scholl)

#### J. Twelve Step Interventions in BED

i. Team Lead & PI: Error! Reference source not found.

#### ii. Support: J. Scott Tonnigan, PhD

- Pending Confirmation
- External Investigator (Pending Confirmation)
- University of New Mexica, Center on Alcohol, Substance Abuse, and Addiction (CASAA); Integrative Management of Chronic Pain and Opioid Use Disorder for Whole Recovery (IMPOWR) Center



- https://casaa.unm.edu/people/investigators/stonigan.html,
- https://impowr.unm.edu/study-team/j.-scott-tonigan,-ph.d..html)

## 2. Research Skills Teams

A. Data & Cyber Security, Regulatory Compliance, & Responsible Technology Use

**Error! Reference source not found.** 

**Error! Reference source not found.** 

**B.** Biostatistical Data Analysis

Error! Reference source not found. (In-House)

Error! Reference source not found. (Volunteer Consult)

**C. Public Health Education** 

**Error! Reference source not found.** 

**D.** Public Policy Team

Adam Sadowsky, ND

**E. IRB Educator** 

**Error! Reference source not found.** 



## **XI. Research Activities**

# 1. Real Life Intervention Use in Adults with Eating and Weight Concerns (and Binge Eating – Detected and Undetected)

Brenna Bray, PI/Team Lead; Jan Rodriguez (Team Lead)

Recent data finds that 95% of individuals with binge eating disorder never receive a formal diagnosis, 95% never pursue, receive, or recognize the need for formal treatment, and 85% lack access to healthcare. Moreover, given the confusing relationship between overweight, digestion, and binge eating, many individuals recognize, pursue, or receive treatment for their weight or digestive issues, rather than recognizing and treating the underlying eating disorder pathology (when present). This study will use social media recruiting to enroll and collect information from consenting individuals seeking support for weight, eating, and/or digestive issues to identify what percentage of these individuals qualify diagnostically as having binge eating a binge eating disorder, what interventions they've pursued to address their eating and weight issues, and what their experience with these interventions has been. Social Media and local services in the Denver Metro area will be used for recruiting. The secure Research Electronic Database Capture System (REDCap) will be used to securely administer surveys and collect and store data. Data will be analyzed for themes using retrospective analysis. Data will be presented at health conferences, published in high impact scientific journals and disseminated through the NourishED website, outreach campaigns, and CME/CEU accreditation courses.



## 2. Binge Eating Disorder in Colorado Veterans

Binge eating disorder (BED) is characterized by the rapid consumption of large amounts of food due to a loss of control. It is often comorbid with adverse life experiences and post-traumatic stress disorder (PTSD). Research indicates that individuals with BED frequently use binge eating as a coping mechanism for trauma, leading to significant psychological distress and physical health issues. Despite its prevalence, BED remains underdiagnosed and undertreated, particularly among veterans.

Current research on the prevalence of BED in veterans is limited, but existing studies suggest veterans are at a higher risk for eating disorders compared to the general population. For instance, the point prevalence estimates for BED among male veterans range from 2.2% to 2.4% among the 5% of individuals with BED who do receive a formal diagnosis, and 6.3% to 7.3% among female veterans who receive a formal diagnosis. Recent findings suggest 95% of individuals with BED never receive a formal diagnosis and often fail to recognize the underlying eating disorder pathology themselves. Thus, the 2.2-7.3% point prevalence rates for eating disorder diagnoses in U.S. Veterans are likely drastically underestimated. Moreover, even among individuals who do recognize the underlying eating disorder psychopathology, many decline to discuss these issues or seek clinical care for them, due to a variety of complex barriers, including stigmatization (both socioculturally and in healthcare settings related to body weight/shape/size, having an eating disorder, and having a mental and/or physical health diagnosis more broadly). This is further bolstered by an outdated misconception that ascribes eating disorders primarily to "skinny, white, affluent



girls" (the "SWAG" stereotype). This stereotype overlooks the diverse populations affected by eating disorders, including veterans who may not seek treatment due to shame and stigma.

This research aims to identify the prevalence rates of binge eating and BED among veterans in the Denver metro area using a secure Research Electronic Database Capture (REDCap) survey and medical health records. We will conduct semi-structured interviews to explore veterans' unique experiences, employing qualitative reflexive thematic analysis. Morning cortisol levels will be assessed through saliva samples to investigate potential links between cortisol, PTSD, and BED. Additionally, we will test the feasibility and safety of a community-based psychoeducation program tailored to veterans. User feedback will be utilized to adapt the program to meet the specific needs of the study participants. **This research will directly impact the veteran population in Denver by providing insights and developing responsive interventions for BED.** 



## 3. Interoception, Somatosensation, & Neurodivergence in BED

#### Ariana Pizadeh, MS

#### Juliet Nadershahi (Team Lead)

This research explores the intricate relationships between neurodivergence, interoception, and alexithymia in the context of binge eating disorder (BED). Interoception, the process by which the nervous system senses, interprets, and integrates signals from within the body, is crucial for understanding emotional regulation and bodily awareness. Alexithymia, characterized by a lack of emotional awareness and difficulty in identifying and describing feelings, has been linked to interoceptive deficits. Recent studies suggest that these deficits are not limited to emotional interoception but also extend to non-affective interoception, such as perceiving heart rate. Our research aims to investigate these interoceptive deficits in individuals with BED, considering the potential transdiagnostic and endophenotypical nature of eating disorders. By examining the associations between interoception, alexithymia, and neurodivergence, we seek to uncover underlying mechanisms that contribute to the onset and maintenance of BED. This study also addresses the comorbidity between eating disorders and neurodevelopmental disorders, such as autism spectrum disorder (ASD), highlighting the need for a nuanced understanding of these complex interactions. Our findings may inform the development of targeted interventions and therapeutic approaches for individuals with BED, emphasizing the importance of interoception as a potential treatment target.



## 4. Network Mapping of Environmental Factors in BED

Rishi Lamichhane (Team Lead; Lamichhane et al., 2024 in prep)

Binge eating disorder is an autonomous DSM-V diagnosis with high prevalence rates and a complicated health sequela. Recent studies endorse a variety complex environmental factor that can contribute to the development and maintenance of binge eating disorder. For example, a recent cross-sectional mixed-methods study of binge eating disorder experts' opinions (Bray et al., 2022) identified nine themes and many subthemes that experts endorsed as environmental factors relevant to binge eating disorder. These included: (1) systemic issues and systems of oppression (100% expert endorsement); (2) marginalized and underrepresented populations (100% expert endorsement); (3) economic precarity and food/nutrition insecurity/scarcity (93% expert endorsement); (4) stigmatization and its psychological impacts (93% endorsement); (5) trauma and adversity (79% endorsement); (6) interpersonal factors (64% endorsement); (7) social messaging and social media (50% endorsement); (8) predatory food industry practices (29% endorsement); and (9) research/clinical gaps and directives (100% endorsement). Expert recognition and literature findings suggest that environmental factors identified in Bray et al., 2022 often intersect and interact in a variety of complex ways that often disproportionately impact specific vulnerable populations. Here, we applied a novel network mapping protocol to the qualitative data published in Bray et al., 2022 to provide a visual representation of the complex ways in which the primary themes experts endorsed as relevant to binge eating disorder may relate to one another and to binge eating.



# 5. Public Health Systems for Improving Mental Illness Through Food Security & Mental Health Support in Ghana

Rev. Fr. Albert Wugaa (Team lead; Wugaa et al., 2024 in prep)

**Title:** The Impact of Food Security and Mental Health Resources on the Rehabilitation of Unhoused Individuals: A Case Study from Nvrongo, Ghana

This study explores the intersection of food security and mental health resources in the rehabilitation of unhoused individuals, prompted by a case study from Nvrongo, Ghana. The research was conducted by the NourishED Research Foundation in collaboration with Rev. Fr. Albert Wugaa. The case involved an unhoused community member with mental instability who was provided with daily food and mental health resources by Fr. Wugaa. Over a period of 6-12 months, the individual's mental health significantly improved, enabling them to secure employment and reunite with their family. This case highlights the critical role of food security and mental health support in the recovery and reintegration of unhoused individuals. The findings underscore the importance of holistic approaches in addressing homelessness and mental health issues, particularly in resource-limited settings.



# **XII. Affiliations & Partnerships**

# 1. National University of Natural Medicine's Helfgott Research Institute (NUNM/HRI)

NRFi is proud and grateful to have a formal affiliation with NUNM/HRFI.

This affiliation provides the following benefits:

- 1. Use of the NUNM/HRI **Institutional Review Board (IRB)** to review and monitor all NRFi human subjects research protocols and projects.
- 2. Use of the NUNM/HRI's free access to <u>Collaborative Institutional</u> <u>Training Initiative (CITI Program) Trainings and Certifications</u> in Responsible Conduct in Research (RCR), Human Subjects Research (HSR, including Health Insurance Portability and Accountability Act (HIPAA) compliance), and U.S. Food and Drug Administration (FDA) International Council for Harmonization (ICH) Good Clinical Practice (GCP).
- 3. Alliance and affiliation with NUNM/HRI on grant proposals (e.g., for federal research funding).
- 4. Mentorship and collaboration with NUNM/HRI research staff and team
- 5. Use of NUNM'HRI's research resources (e.g., PubMed, Dedoose, etc.).



## XIII.....F iscal Sponsorship

NRFi is proud and grateful to receive fiscal sponsorship from the National University of Natural Medicine's Helfgott Research Institute (NUNM/HRI).

## 1. Executed Sponsorship Agreement

The details of the **Executed Fiscal Sponsorship Agreement** are outlined below.

This Executed Fiscal Sponsorship Agreement ("Agreement") is made and entered into as of August 30, 2024, by and between:

## NourishED Research Foundation ("NRFi")

Address: 4580 Martin Dr. Boulder, CO 80302 Contact Person: Brenna Bray, PhD Title: Founder, Director, CEO, & Principal Investigator Email: <u>brenna@nourishedrfi.org</u> Phone: +1 206-819-9647

and

# National University of Natural Medicine's Helfgott Research Institute ("Helfgott")

Address: 2220 SW 1st Ave, Portland, OR 97201. Contact Person: Joshua Goldenberg, ND Title: Associate Director of Research Email: <u>jgoldenberg@nunm.edu</u> Phone: +1 206-883-0119

## A. Purpose

The purpose of this Agreement is to establish a fiscal sponsorship relationship between NRFi and Helfgott, whereby Helfgott will act as the fiscal sponsor for



NRFi's projects and programs, specifically for applying to the Caring4Denver grant.

## **B. Recognition of Status**

NRFi acknowledges that it has less than one year of tax returns and financial statements and a pending 501(c)(3) status. Therefore, NRFi is required to work with a fiscal sponsor to be eligible for the Caring for Denver grant. Thus, this document acknowledges the agreement of NUNM's Helfgott Research Institute to act as a fiscal sponsor for NRFi in its application and potential receipt of the Caring for Denver Community-Centered Solutions grant.

## C. Responsibilities of Fiscal Sponsor

## i. Mission Alignment

• Helfgott shares a similar mission to NRFi and is a 501(c)(3) organization.

## ii. Acceptance of Donations and Grants

 Helfgott can accept tax-deductible donations and grants on behalf of NRFi and agrees to do so as the fiscal sponsor for NRFi.

## iii. Financial Oversight

 Helfgott agrees to be responsible for the financial oversight of the project that is being submitted for funding from the Caring for Denver Foundation by NRFi ("Empowering Hope: Community-Based Solutions for Eating Disorders in Denver").



- Helfgott agrees to assist NRFi in fulfilling the requirements of the grant in a timely nature.
- This will include provision of the following documents to NRFi:
  - i. Monthly financial statements.
  - ii. Year-end financial statements.
  - iii. A year-end statement of grant expenditures.
  - iv. Any additional information required for annual reporting to Caring for Denver.

#### iv. Grant Eligibility

• Helfgott is eligible to receive grants from the Caring for Denver Foundation and is subject to approval.

## v. Mentorship and Resources

 Helfgott has a track record of federal funding and agrees to provide mentorship and resources to NRFi through its previously arranged partnership as outlined in the Partnership Agreement Form signed August 28, 2024, and as outlined in the financial oversights detailed in #3 above.

#### **D.** Responsibilities of Sponsored Organization

 Board of Directors and Advisory Board: NRFi maintains its own Board of Directors and Advisory Board. The Advisory Board quorum has representation through one vote on the Board of Directors.



## **E. Financial Arrangements**

Helfgott will charge an administrative fee of 10% of the total direct costs for providing fiscal sponsorship services. This fee will cover the costs associated with financial oversight, reporting, and administrative support.

## F. Term & Termination

This Agreement shall commence on Friday, August 30, 2024, and continue for a period of four years, unless terminated earlier by either party with 60 days written notice. Upon termination, any remaining funds shall be returned to the donor or used in accordance with the donor's

## G. Confidentiality

Both parties agree to maintain the confidentiality of any proprietary information shared during the collaboration.

## **H. Indemnification**

NRFi agrees to indemnify and hold harmless Helfgott from any claims, liabilities, or expenses arising from NRFi's activities under this Agreement.

## I. Signatures:

## Brenna Bray, PhD

Founder, Director, CEO, & Principal Investigator NourishED Research Foundation | <u>www.nourishedrfi.org</u> Joshua Goldenberg, ND Associate Director of Research National University of Natural Medicine's Helfgott Research Institute



XIV......A

ppendix H: NRFi Flyer



NOURISHING KNOWLEDGE, EMPOWERING HOPE

# Nourish ED Research Foundation

Empowering Hope: Community-Based Solutions for Eating Disorders for Everyone

## MISSION

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NRFi uses research to nourish knowledge and empower hope for eating disorders, for everyone.

# VOLUNTEER

Join NRFi to create a better future for eating disorders, for everyone!

DONATE

www.nourishedrfi.org

NRFi relies on donor support and every contribution helps. Learn more.

## STAY CONNECTED

Follow us on Instagram, Facebook, & LinkedIn for news & event updates.

# SERVICE

NRFi serves individuals and communities impacted by eating disorders & social justice roots.

## STRATEGY

We target the environments eating disorders occur in to create a better future for everyone.

## SOLUTIONS

Our community-based research, education, outreach, and treatments increase awareness about eating disorders and their social justice implications.

# 양 SUPPORT

We provide accessible and affordable treatment solutions.

# RESEARCH

We use community-based research to better understand and serve eating disorders.



inourished@nourishedrfi.org

## TRAININGS

NRFi's accreddited healthcare trainings improve eating disorder detection and care.



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## **XV.** Appendix I: Flyer Content for NRFi Fundraising Event

#### Event Name: NourishED Luminaries Gala

**Description**: Join us for an unforgettable evening at the NourishED Research Foundation's annual fundraising event in Denver, CO. This exclusive gathering will feature live music by the talented Rob Drabkin, an inspiring presentation by Brenna Bray, and a captivating discussion led by professional photographer and athlete Cory Richards, Vice President of NourishED. Enjoy a night of entertainment, networking, and philanthropy as we come together to support our mission of advancing research and education in the field of eating disorders. Your generous contributions will help us raise between \$100,000 and \$500,000 to fund our ongoing projects, including the development of a binge eating self-help workbook, free training for healthcare providers, and the creation of video modules and a podcast.

## **Highlights**:

- Live music by Rob Drabkin and The Lumineers
- Presentation by Brenna Bray
- Discussion with Cory Richards
- Gourmet catering and beverages
- Silent auction and raffle
- Networking opportunities with like-minded individuals

Date: [Event Date] Time: [Event Time] Location: [Venue Name]



# 

The following locations will be provided with 3 million free access codes for the minimum viable product (MVP) of the NRFi binge eating platform (e-textbook, e-workbook, and online resources) described in <u>section XI.1</u> and with free access to the MVP for NRFI Healthcare training modules described in <u>section XI.2</u>.

## **1. Food Pantries**

- A. <u>127 Food Pantries</u>
- **B. 300,000 Denver Metro residents provided with service access**
- **A. Population Impact Projections:** 
  - i. Denver Metro population: ~715,522 to 2.96 million.
  - ii. Projected Denver Metro food pantry users: 102,000-423,000.
  - iii. Potential Denver Metro food pantry users with eating disorders: 51,000-212,000.

## 2. Community Health Centers (CHCs)

- A. 15 Community Health Centers (CHCs)
- **B. 1.8 million Denver Metro residents provided with service access**
- **B.** Population Impact Projections
  - i. Projected CHC Users: 1.875 million.



ii. Projected CHC users with eating disorders: 93,750-581,250.

## 3. Weight Loss Clinics

## A. 18 Weight Loss Clinics

## **B. 1 million Denver Metro residences provided with service access**

## **C. Population Impact Projections:**

- Projected Denver Metro residents with overweight or obesity: 503,200
   -1,065,600.
- ii. Projected individuals with overweight or obesity and eating disorders: 403,000–852,480.
- **iii.** Projected individuals with overweight or obesity, eating disorders, and low socioeconomic status: 89,347–89,352.
- iv. Denver Metro residents using GLP-1 drugs: ~12.5% of Denver Metro population.
- v. Projected Denver Metro Off-label GLP-1 Drug Use for weight loss: 40%.
- vi. Projected Denver Metro Off-Label GLP-1 drug use with comorbid binge eating: 10,723–118,400.

## 4. Eating Disorder Centers

## A. 4 Eating Disorder Clinics:

- B. 48,000–300,000 Denver Metro residents provided with access to service
- **D.** Population Impact Projections:



- i. Projected Denver Metro residents with an eating disorder: 56,862 to 356,936.
- ii. Projected Denver Metro Residents with an eating disorder who lack access to healthcare: 48,333–303,396.

## 5. Total Possible Impact in Denver Metro Area

- A. Food Pantries: <u>127 Food Pantries</u>; 300,000 served.
- **E. Community Health Centers:** <u>15 Community Health Centers</u>; 1.8 million served.
- F. Weight Loss Clinics: <u>18 weight loss clinics</u>; 1 million served.
- G. Eating Disorder Centers: 4 Clinics; 48,000 300,000 served.
- H. Total: 164 locations; 3.4 million served.

## 6. Narrative with Citations

- A. Food Pantries: 127 locations; 300,000 served.
  - i. <u>127 Food Pantries</u>
  - ii. 300,000 free access codes for e-platform resources)
  - iii. Impact Projection Narrative: The 2020 census estimates the Denver Metro population to range from ~715,522 to 2.96 million when including surrounding areas (www.macrotrends.net) and one in seven Denver Metro residents report using food pantries (102,00-423,000 estimated food pantry users)( www.foodpantries.org). Current research estimates that ~55% of food pantry users qualify



diagnostically as having an eating disorder (see citations in <u>Bray et al.</u>, 2022), suggesting as many as <u>51,000-212,000 individuals in the</u> <u>Denver Metro area may experience food insecurity and binge eating</u> <u>pathology</u>. We aim to provide free resources for these individuals and their families.

## I. Community Health Centers: 15 locations; 1.8 million served.

i. <u>15 Community Health Centers</u> (CHCs)

#### ii. 1.8 million free access codes provided

- iii. Impact Projection Narratives: The <u>Colorado Community Health</u> <u>Network (cchn.org)</u> estimates there are 15 Community Health Centers (CHC) that serve a total of 1.875 million under-served individuals in the Denver Metro Area. Current eating disorder data suggests 5-31% of Americans experience binge eating disorder at some time in their life, with higher prevalence rates in under-served communities and high rates of missed diagnosis and screening (of up to 95%; see citations in <u>Bray et al., 2022</u>). Thus, we estimate that ~93,750– 581,250 under-served community health center users in the Denver Metro area will experience binge eating disorder at some point in their life and as many as 1.781 million users may experience sub-clinical or undiagnosed binge eating.
- J. Weight Loss Clinics: 18 locations; 1 million served.
  - i. <u>18 weight loss clinics</u>
  - ii. One million free access codes distributed



#### iii. Impact Projection Narrative:

Online map resources (Google and Bing) identify 18 weight loss clinics in the Denver Metro area at least four with "low-cost" options. Patient use data is not publicly available for these clinics, so to estimate the number of Denver Metro residents who may use weight loss clinics and struggle with binge eating, we look to rates of obesity and GLP-1 drug use (e.g., Ozempic).

County Health Rankings 2024 data report 25% of Colorado residents have overweight or obesity (e.g., a BMI > 30), with county-wide percentages ranging from 17–36% (www.countyhealthrankings.org; Stiefel et al., 2021). Thus, we can estimate that ~503,200 – 1,065,600 of Denver Metro residents have clinical overweight or obesity. Data suggests that ~30–50% of individuals who seek clinical support for overweight and obesity have binge eating disorder at a level that impedes clinical care and up to 80% have less severe or subclinical binge eating (Bray et al., personal communication with University of New Mexico Weight Loss Clinic, 2021). Thus, we can estimate that ~403,000–852,480 Denver Metro residents may have overweight or obesity with clinical or subclinical binge eating. If we assume ~22% of these individuals also have low socioeconomic status (since 22% of weight loss clinics advertise "low-cost" options), we can estimate 89,347–89,352 Denver Metro residents have binge eating, clinical overweight or obesity, and low socioeconomic status.

Recently, GLP-1 drugs like Ozempic have also been found to have high use in the U.S. with high off-label use among individuals with binge-type eating disorder. For example, a Kaiser Family Foundation 2024 Health Policy Primer found that one in eight Colorado residents has taken a GLP-1 drug like Ozempic with 40% of users reporting off-label use for weight loss (Kaiser Family Foundation, 2024). Thus, we can



estimate that 12.5% of Denver metro's population has used a GLP-1 drug, 40% of those uses were off-label for weight loss, and between 30–80% of those have comorbid binge eating, suggesting ~10,723–118,400 Denver Metro residents use GLP-1 drugs for off-label weight loss with comorbid binge eating.

## K. Eating Disorder Centers: 4 centers; 48,000 -

- i. 4 Eating Disorder Centers
- ii. 48,000 300,000 free access codes distributed

#### iii. Impact Projection Narrative:

In the Denver Metro area, we will distribute 3,600 free access codes to four eating disorder centers. These centers are estimated to serve between 56,862 and 356,936 individuals with eating disorders. Additionally, 48,333 to 303,396 of these individuals may lack access to healthcare, highlighting the critical need for these resources. This initiative aims to provide much-needed support to a significant portion of the community struggling with eating disorders.

The four main eating disorder centers we will service are:

#### Eating Disorder Foundation<sup>1</sup>.

Eating Recovery Center Denver - Franklin St.

Eating Recovery Center | Pathlight Mood & Anxiety Center.

Eating Recovery Center Denver - 1st Ave.

## L. Total: 164 locations; 3.4 million served.